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UNIVERSITY OF ALBERTA

READING: A DESCRIPTIVE STUDY OF FOUR CREE CHILDREN

BY

© CAROL LEROY

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF EDUCATION

DEPARTMENT OF ELEMENTARY EDUCATION

EDMONTON, ALBERTA

FALL, 1990

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Mora J Juliebö
Dr. M. Juliebö (Supervisor)

Grace Malicky
Dr. G. Malicky

Dr. C. Urion

Date: May 24, 1990

To Beth Leroy, who somehow instilled in her children a desire
to read the world.

ABSTRACT

There have been many attempts to explain why and how the reading abilities of Native children might be different from those of children in the dominant culture. These attempts have focused on the children's cognitive capacities, background knowledge, learning styles, and on conflicts between their cultures and those of the broader society. However, there has been very little research into the knowledge and attitudes that Native children actually bring to their reading.

The purpose of this study was to describe the use of knowledge that was evident in the reading of individual Cree children, and to describe their stated views of their own involvement in reading. Four grade three Cree children read stories from an informal reading inventory silently and orally, retold the stories, and answered comprehension questions about them. They were also involved in semistructured interviews about their learning to read, experiences with reading, and reading preferences and strategies. Analysis was made of miscues, retellings of stories, and responses to questions to discern how the children used text information and background knowledge to construct meaning from print, and to discover how they viewed their involvement in the process.

The findings indicated that when each child read at the level where his or her comprehension was adequate, there was

a great deal of variation among the children in the types of cues used in oral reading, in the use of prior knowledge to fill in gaps left by the author, and in tendencies to extend the text in personal ways. The latter two variations were consistent with differences in how the children viewed their involvement in reading.

The individual differences among four children who share a common community and classroom raise questions about implicit and explicit assumptions about ways that shared characteristics of "Nativeness" shape their reading. This study suggests that resources need to be provided and teachers need to be prepared to develop reading instruction to meet a variety of needs within a single classroom. In addition, there needs to be further research into the scope of individual diversity in Native children's reading, as well as the processes through which this reading develops.

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Chapter 1

INTRODUCTION TO THE STUDY

In addition to highlighting the need for Native schooling to become more congruent with the learning of traditional knowledge and values in Native communities, major policy documents representing Native people's views on education also stress the need to facilitate mastery of basic skills in the regular curriculum (Alberta Education, 1987; National Indian Brotherhood [NIB], 1972; National Indian Brotherhood, Assembly of First Nations [AFN], 1988]). These documents agree that curriculum instruction must be grounded in the child's experience because, as Vygotsky points out (1978), instruction can only be successful when it is "matched" (p.85) with what the child already knows.

This principle is particularly true for reading instruction because the construction of meaning from print involves extensive use of the reader's prior knowledge of language, of the world, and of the nature of reading (Fagan, 1987; Goodman, Y.M., Watson & Burke, 1985; Harste Woodward & Burke, 1984, Rosenblatt, 1989; Smith, 1988). This knowledge develops through a reader's life experiences, as do his or her attitudes toward literacy.

Reading generally receives more mention in the literature on Native children's schooling than any other aspect of the regular curriculum. It is also frequently cited by parents and teachers of Native children as a source of concern. Concerns about reading stem from its importance to school achievement, from its role in everyday life activities, from its importance to many types of employment, and from a perception that learning to read is particularly difficult for many Native children. In the literature, this focus is also related to a growing recognition of literacy as a "cultural phenomenon" (Goodman, Y.M., 1986; p.1). Like all aspects of language learning it,

> presupposes a specific social nature and a process by which children grow into the intellectual life of those around them (Vygotsky, 1978; p.88).

In spite of extensive interest in, and concern about, Native children's reading, there has been very little research in this area. Many hypotheses have been generated to suggest that, on the basis of their racial or cultural backgrounds, Native children's needs for reading instruction are different from those of other children but there are several limitations to these kinds of hypotheses. First, the diversity of Native cultures even within Alberta makes generalizations about Native people problematic (Decore Carney & Urion, 1981). Second, these cultures are by no means isolated from the broader society (Toohey, 1977), and so are not isolated from that culture's literacy. Third, many of these hypothesis are based on factors thought to be related to reading, even though learning to read is too complex to allow for instructional needs to be predicted on the basis of specific background factors (Harste, Woodward & Burke, 1985). Although information about the children's backgrounds can be useful, it cannot substitute for what we can learn about their literacy through studying the children themselves. As Rosenblatt (1989) notes,

> no matter how much we may generalize quantitatively about groups, reading and writing are always carried out by individuals (p. 174).

Purpose of the Study

The purpose of the study was to explore and describe the views and use of knowledge brought to reading by grade three English-speaking Cree children. The research questions were,

1. What use of text information and prior knowledge is evident when they read selected texts?
2. What are these children's stated views of their own involvement in reading?
3. How do these children compare with each other in their reading of selected texts, and in their stated views of their involvement in reading?

Overview of the Study

This study was qualitative in nature because the research questions were open-ended, the intention was to describe a limited number of cases rather than to form generalizations, and the researcher was the primary instrument for data collection and analysis (Borg and Gall,1989). As Merriam (1988) notes, qualitative research "is exploratory, inductive, and emphasizes processes rather than ends." (p. 17).

Fourteen English-speaking Cree children who attended a grade three class were initially involved in the study. In individual, informal sessions, they were asked to read test passages developed by Alberta Education (1986) silently and orally, to recall what they had read, and to answer questions about the passages. They were also involved in informal interviews about their personal reading. For the three children reading at or above grade three level, and one child reading at the upper grade two level, analysis was made of miscues (Goodman, Y.M. & Burke, 1985), unaided recalls (Fagan, cited in Malicky, 1987), and responses to comprehension questions to indicate the children's use of text information and background knowledge. For each of the four children, this information was synthesized with his or her stated view of involvement in reading. Then comparisons were made across children with respect to their use of knowledge and their views of reading.

Limitations of the Study

1. The children's use of text information and prior knowledge could only be inferred from what the children said.
2. The children's reading behaviours and expression of views may have been different from those that would occur in other contexts.
3. The findings would not be generalizable to other children, Native or non-Native.

Significance of the Study

There is a need to develop local curricula to meet the needs of children in specific areas (AFN, 1988; NIB, 1972). There are a number of views as to what reading instruction for Native children should be like, but there is little research to support or refute these views. Merriam (1989) notes that descriptive case studies are "useful ... in presenting basic information about areas of education where little research has been conducted" (p. 27). Although only four children were involved in this study, it was hoped that the process of discovering what they know in reading, and how they felt about it, might provide some insights for those who are teaching or carrying out research with Native children in other contexts. It was also felt that the study might lead to insights into the nature of assumptions that are often held about Native children.

Chapter 2

BACKGROUND OF THE STUDY

The purpose of this chapter is to provide a background for the study. The first section of this chapter will describe the conceptual framework for reading used in the study. The second section will involve a review of the literature on Native children and their reading.

Conceptual Framework for Reading

Smith (1988) suggests that reading encompasses such a diverse and complex set of events that a single definition of this term is not feasible. However, given the variety of views about what reading is, it is important to describe what the word means in particular contexts. In the context of this study, the definition of reading is Johnston's (1983) definition of reading comprehension, or "the process of using the cues provided by the author and one's prior knowledge to infer the author's intended meaning" (p. 9). This definition is consistent with interactionist and transactional views of reading, insofar as reading is considered to be communication with an author through the medium of a text (Fagan, 1987; Goodman, Y.M., Watson & Burke, 1985; Rosenblatt, 1989, Smith, 1988).

Harris and Sipay (1985) summarize the interactionist view by saying that a reader constructs meaning from text through the interaction of two types of processes. The first type, "bottom-up", involves the translation of written symbols into language. The second type, "top-down", involves the reader's use of prior knowledge to generate predictions about the meaning of the material. The above authors point out that, "information derived from each kind of processing is combined to determine the most likely interpretation of the printed message" (p. 9).

Rosenblatt (1969) has argued that the term "interaction" is inadequate to describe the process of reading. She suggests that the process involves a "complex, non-linear, self-correcting transaction" (1989; p.158) between text and reader, and that the nature of this transaction sometimes focuses more on the reader's personal experience of reading, than on the information that is gained from the reading process. Writers such as Y.M. Goodman, Watson, and Burke (1985) have recently altered their terminology and have adopted the term "transaction" to emphasize the dynamic relationships between the text and reader, and among the processes engaged in by the reader within a specific context.

Regardless of the terminology used, there is growing agreement that, as Goodman and Burke (1972) point out, "All readers bring the sum total of their past experiences to the reading process (p. 11)." Smith (1988) makes reference to the reader's use of non-visual information, or prior knowledge, saying that it includes knowledge of the relevant language, of the subject matter, and knowledge of how to read. Rosenblatt (1989) discusses the reader's use of "past experiences, prior knowledge, social and psychological assumptions, and assumptions about language and literature" (p. 159). Fagan (1987) refers to these as the reader's "inner resources" (p. 11), and like Rosenblatt, he includes the reader's attitude as an important influence on the reading process.

More specifically, Y. M. Goodman, Watson & Burke (1985) have identified three types of information used by the reader to construct meaning from text, and they emphasize that,

> while they can be separated for the purposes of discussion, research, or definition, they cannot stand alone or be isolated from the others during actual use (p. 29).

The use of each type of information can be inferred from the study of the reader's miscues, or omissions, insertions, and substitutions made during oral reading.

The first type of information, graphophonic cues, requires knowledge of sound-symbol relationships, as well as knowledge of writing conventions such as those involved in punctuation. The reader's use of graphophonic cues can be inferred from the degree to which the reader's miscues retain the letters and sounds of the original words in the text. The second type, knowledge of syntax, includes knowledge of word order, tense, and gender, and it can be seen in the degree to which the reader's miscues are grammatically appropriate in the text.

The third type, semantic information, is "everything the reader knows about the world and about language" (p. 27), and it is evident when the reader's miscues are meaningful in the context of the sentence or the entire passage being read. The reader's use of semantic information depends, not only on his or her experience with concepts that are pertinent to the text, but also on the reader's possession of appropriate schemata, or frameworks for organizing and recalling these concepts. Schemata enable the reader to allocate attention selectively, to form inferences, and to discern relationships among ideas during the reading process (Anderson & Pearson, 1984).

Just as miscue analysis can be used to determine the reader's use of text and prior knowledge, so too can analysis of the reader's retelling of what was read. Bartlett (1932), who was a pioneer in this line of research, observed and analyzed how various adult subjects retold a North American Indian tale called "The War of the Ghosts." (p.120). He noted that the subjects had a strong tendency to omit, add, and transform text information so that the story made sense in the context of their prior experience.

Since then, various systems have been developed to study the reader's use of text information and prior knowledge in the construction of meaning from texts. In Fagan's (cited in Malicky, 1987) system of recall analysis, the reader's unaided retelling of a passage is parsed into clauses and each clause, called a recall, is compared to its counterpart in the text, and then classified into one of seven categories according to the information that is evident in the recall. At one extreme, verbatim, or Text Exact recalls, contain word-for-word repetition of text information, and at the other, elaborative, or Experiential recalls, contain information that is consistent with the text but idiosyncratic to the reader because of his or her background experience. The remaining categories contain text information and the reader's personal knowledge in varying combinations.

Both miscue analysis and recall analysis were used in this study, and more specific information about coding procedures for these will be provided in Chapter Three.

The interactions between reader and text are complex, and our recognition of this complexity is compounded by the growing recognition that reading occurs in contexts that shape, not only how reading is learned, but also how reading occurs in any particular situation (Bloom & Green, 1984; Fagan, 1987; Goodman, Y.M., Watson, & Burke, 1985; Harste, Woodward & Burke, 1984; Johnston, 1983; Rosenblatt, 1989).

The nature of interpersonal relationships, the structure of the situation, perceived purposes for reading, and the nature of follow-up questions and tasks have all have been shown to influence how the reader constructs meaning from text.

In addition, several authors have argued that the broader political context of literacy affects how children learn to read and how they approach the reading process. In particular, widespread reading difficulties among minority children have been attributed to resistance to literacy by minority cultures who view it as a tool of oppression from the dominant society (Freire & Macedo, 1987; McDermott, 1987; Ogbu, 1988).

In summary, the view of reading adopted for this study is that reading is a complex process in which the reader's prior knowledge interacts with text information for the construction of meaning. It is a cognitive and linguistic process, but also an affective one, shaped, at least in part, by the context within which it occurs.

Literature on Native Children's Reading

In this section, there will be a review of the literature on Native children's reading. The purpose of this review is to develop a background to the study by identifying ways in which Native children are perceived to have certain strengths and weaknesses in their reading.

The term "Native" refers, in general, to members of aboriginal communities who, in Canada, are Indian, Metis, and Innuit people. This term is loosely defined for this review, to accommodate discussion of a variety of explicit or implicit views of what "nativeness" means in discussions of literacy. The terminology used in the following review will reflect that used by the author whose work is being discussed.

The literature has been grouped into four categories, according to four basic topics. In the first category there is discussion of cognition and language. In the second category there is discussion of Native children's home backgrounds in reading, and their orientations to literacy. The third category is based on the process of learning to read at school. The fourth category discusses the political contexts of reading and literacy.

Although many Native children in Alberta speak English as a second language, the scope of the following discussion has been limited to issues affecting Native children who speak English as a first language.

Cognition and Language

Because reading is such a complex cognitive process, it is reasonable to assume that deficiencies in one's cognitive and linguistic functioning would have an adverse effect on one's reading. Although an examination of the research reveals no basis for the belief that Native people are predisposed to cognitive deficiencies (Gould, 1981), the opinion that such deficiencies exist is widely held by teachers and researchers alike (Toohey, 1977; Tootoosis, 1983; Wall, 1985). For example, Rushton (cited in Strauss, 1989) dismisses Indian people as an "anomaly" in human evolution because, in spite of their supposed genetic relationship to oriental people, they are supposedly intellectually inferior to those of the White race. Another example is research from which it has been suggested that, because of their skull sizes, Indian people may be more prone to linguistic deficiencies than other people are (McShane, cited in Common & Frost, 1987). Chrisjohn & Peters (1989) note that studies proclaiming Indians to be right-brain dominant are marked by methodological flaws as well as unwarranted generalizations. They write that in spite of these flaws, this literature must be addressed,

> since such articles are also read by people with influence on education, and since such readers might take this sort of "science fiction" seriously (p. 77).

Griese (1975) asserted that reading comprehension difficulties of northern Indian and Innuit children were related to deficits in abstract thinking. He reasoned that traditional cultures, being more concerned with immediate survival than long-term goals, do not develop the capacity to speak about and to think about events outside their immediate experience. He suggested that because cognitive deficits were based more on culture than on heredity, acculturation into mainstream society would solve this problem. However, Griese did not cite any research to document either the extent or the nature of the children's reading problems. Rather, he cited personal anecdotes of his encounters with northern Indian and Innuit children. For example, he noted that acculturated northern students were more likely than unacculturated ones to recognize the symbolic nature of an oriental shrine.

It is important to recognize that these kinds of beliefs are still widely held, and are repeated both in school settings as well as academic communities. Yet, as Erickson (1988) points out, anthropologists are increasingly questioning the belief that people of traditional cultures tend more to concrete than abstract reasoning, particularly in light of research showing that abstract thought is evident in naturalistic conditions, such as in work and in the production of art. He states that "school-like achievement tests" (p. 205) are inadequate measures for cross-cultural comparisons in intelligence. In addition, there is now general agreement among linguists that Native languages, like all others, are capable of expressing "complex philosophical points" (Zakaluk & Sealey, 1988). Even Bernstein (1970), whose research has often been used to justify the notion that certain cultures are linguistically and culturally inferior notes that,

> There is nothing, nothing in the dialect as such, which prevents a child from internalising and learning to use universalistic meanings (p. 347).

He also suggests that the labelling of some cultures and languages as intellectually inferior is a result of "power relationships created outside of the school" (p. 347).

In spite of these limitations to the cross-cultural study of intelligence, it is important to consider the results of research on Native children's performance on the WISC-r, a widely used I.Q. test, because this research has shown that Native children tend to score average to above-average on the performance portion of the test, and below-average on the verbal portion of the test. The latter portion tests for the same type of language and world knowledge that is often important in school-based reading.

Some writers have observed that low scores on the verbal portion of the WISC-r may be related to cultural differences in the language and background knowledge of Native and non-Native children (Common & Frost, 1988; Mulcahy & Marfo, 1985; St. John and Krichev, 1976) because the verbal portion of this test assumes "a common body of knowledge from which more intelligent children will extract more in the way of knowledge and skills" (Common & Frost, 1988; p. 22). Such cross-cultural differences in background knowledge have been found to be related to differences in the construction of meaning from texts in a variety of studies on well-educated adults as well as children (Johnson, 1982; Lipson, 1983; Nelson, 1987; Reynolds, 1982; Steffensen, 1979). Lankford and Riley (1986) suggest that reading difficulties in Native Americans stem from mis-matches between their cultural knowledge and that of school-based texts, but these authors do not cite specific research with Native readers to support their view. In the Kamehema [KEEP] project in Hawaii, children's scores on the Gates McGinitie test improved substantially when the structure of reading lessons changed, even though basal readers were still used (Au & Jordan, 1981). This indicates that the children's background knowledge had not previously been the inhibiting factor in their reading. Because it was felt that the social processes involved in reading were a key factor for these children, additional consideration of this study will be given in the following section of this chapter.

It would be difficult to argue that the background knowledge of Native children in other communities might not be a factor in their reading, particularly for children living in more isolated areas. However, this knowledge is significant only in relation to the text (Goodman, Y.M. Watson, & Burke, 1985); hence, whether the background knowledge is a strength or a weakness would depend on what the child is reading. In addition, when one considers the diversity in Native communities, one would expect a great deal of diversity in the background knowledge held by Native children. Thus, cross-cultural differences in background knowledge are likely a significant factor in some Native children's reading, but the actual impact on their reading remains unclear.

Another aspect of cognition that has been thought to be related to Native children's reading is learning style. This term has a number of definitions, but it generally refers to the type of strategy an individual applies to learning and problem-solving tasks (More, 1987). Several writers have suggested that child-rearing patterns in Native cultures enhance a different kind of learning style than that of the mainstream culture, and because schooling methods are based on the latter, this difference creates learning difficulties for Native children. A full discussion of Native learning styles is beyond the scope of this study, and the following discussion will be limited to those aspects of learning style that have been said to be related to the children's reading.

In experimental and ethnographic studies with Native children, one general pattern of learning style thought to be common in Native children has been that of strengths in processing visual information and weaknesses in processing auditory information (Kaulbeck, 1984; More, 1987; Pepper & Henry, 1986). Another learning style thought to be prevalent in Native communities is that of a holistic approach to processing information (AFN, 1988; Kaulbeck, 1984; More, 1987; NIB, 1972; Pepper & Henry, 1984; Philips, 1983; Scollon & Scollon, 1981; Tafoya, 1982). Various recommendations for the teaching of reading have been made on the basis of these cognitive styles, for example, the need for more visual aides in the reading, the use of sight-word methods, and the language experience approach (Kaulbeck, 1984). However, these kinds of recommendations are tenuous when learning styles and reading are further examined.

Two difficulties with experimental studies on cognitive style are the artificial nature of the tasks in the studies, and their relationship to the child's language or dialect. Urion (1974), for example, points out that in one study of cognitive style Cree children were requested to memorize a sequence of phonemes that do not constitute minimal pairs in their own language and so would be indistinguishable to them. Kaulbeck, (1984) notes that although this linguistic difference may affect the validity of auditory discrimination tests, the same difficulty in distinguishing English phonemes would adversely affect Native children's reading. However, readers have syntactic and semantic cues to use in the construction of meaning from text, and in the integration of these cues, isolated sound-symbol relationships are relatively unimportant (Goodman, Y.M., Watson, & Burke, 1985; Smith, 1988).

Another difficulty with basing instructional programs on cognitive styles is the assumption that the children use their stronger style on classroom tasks, and there is insufficient research into Native children's learning styles within the classroom to support this assumption (More, 1987). In Warm Springs Indian people in Oregon (Philips, 1983) and in Athabascan people at Fort Chipewayan (Scollon & Scollon, 1981), adult-child interactions in the community context were observed to emphasize visual channels of learning rather than auditory ones, and they tended to be holistic. However, it is important to note that these authors interpreted learning and teaching styles, not only in terms of cognitive strengths, but also in terms of fundamental values and the nature of teacher/narrator and student/listener relationships within the communities studied. In comparison to Anglo-Canadian society, these include a much higher value on the development of personal meaning and an emphasis on minimal intervention with the child so that he or she can grow as a self-directing individual (AFN,1988; Kaulbeck, 1984; More, 1987; NIB, 1972; Pepper & Henry. 1984; Philips, 1983; Scollon & Scollon, 1981; Tafoya, 1982).

This view of learning can be seen in Bird's comment,

> You don't ask questions when you are growing up. You watch and listen and wait and the answer will come to you (cited in Tafoya, 1982; p.30).

However, statements such as, "Indian children do not like being involved in questioning sorts of strategies" (Pepper &

Henry, 1984) greatly oversimplify this stance toward learning. In a case study of five-year-old Cree girl's use of language at home and at school, Tootoosis (1983) observed that questions were an integral part of the girl's language as she actively sought to make sense of her world.

Because reading is a process of constructing meaning, and because it is a process involving synthesis and integration of information (Harste, Woodward & Burke, 1984, Goodman, Y.M., Watson, & Burke, 1972; Smith 1988), one would expect a holistic, self-directed approach to learning to be an asset in learning to read. However, whether or not this approach would be used in reading of school-based texts might depend on how the child perceives the reading event. For example, Scollon & Scollon (1981) felt that traditional world-views would affect Athabascan stances toward writing on Athabascan themes, but would not necessarily affect the writing that is more associated with Anglo-European culture.

In summary then, there appears to be little support for widely held views that children of Native ancestry have linguistic or cognitive deficiencies that would inhibit their reading abilities. There is some indication that Native children in some locations might have difficulty with some of the language and concepts in school textbooks when the latter are based on a different kind of culture than the one the child is familiar with, but there is no evidence to suggest that such difficulties are exclusive to or common to Native children. Both visual strengths in learning, and a holistic, self-directed approach to learning are generally associated with Native child-rearing patterns, and both of these would likely be strengths in the child's encounters with print. However, whether these strengths were used in the child's reading would depend, in part, on the nature of the social processes involved in learning to read. In the following section, the literature related to these processes will be addressed.

Learning to Read at Home

Researchers in the study of early literacy acquisition have acquired a great deal of evidence to suggest that learning to read begins long before a child enters school, and that this learning involves much more than decoding of print. It involves the development of oral language patterns related to text structures, an awareness that print conveys meaning, the use of context as well as print cues to construct meaning from print, and an understanding of print conventions, such as left-to right sequencing (Clay, 1985; Goodman, Y.M., 1986; Harste, Woodward & Burke, 1984). Scollon & Scollon (1981) observed that their own two-year old daughter had acquired such strong knowledge about the literacy of her culture that she could be said to be literate even though she had not yet learned to read. In general studies of early literacy suggest that social interactions in the home play an important role in this process (Goodman, Y.M. 1986; Juliebö, 1985; Teale, 1986).

Downing, Ollila, and Oliver (1975) studied the knowledge of reading and writing held by Indian and non-Indian kindergarten children on the Pacific coast of northern British Columbia. They found that on five test measures of reading the Indian children scored significantly lower than non-Indian children in the same geographical area. The research tasks required the children to recognize the purpose of reading, to recognize the acts of reading and writing in pictures, to demonstrate knowledge of technical vocabulary related to literacy, and to identify letters and phonemes. The researchers concluded that the Indian children had a greater tendency to "cognitive confusion" (p. 312) about the nature of reading than the non-Indian children did, and they concluded that this was due to the lack of literacy experiences in the home.

However, there are several difficulties with this study. One difficulty is that none of the research tasks actually required the children to handle a book or to make sense of it. Clay (1985), Y.M. Goodman (1986), and Harste Woodward & Burke (1984) all advocate assessment through observations and conversations with children as they attempt to derive meaning from print that is related to their daily environments. They state that when these forms of assessment are used, cross-cultural differences in literacy knowledge are generally not apparent among North American children from various ethnic and socioeconomic backgrounds. In a study of Black, Anglo, and Mexican American pre-school children's home literacy experiences, Teale (1986) concluded,

> The analyses by ethnic group revealed no consistent pattern which could account for the variation observed in the home literacy backgrounds of the families. (p. 191).

Heath (1983) found that even though young children experienced literacy in culturally-distinct ways in two working class communities in the American south, children from both communities acquired a great deal of knowledge about reading and writing before they entered school. And, in contrast to the study carried out by Downing, Ollila, and Oliver (1975) on Pacific Coast children, Boloz & Jenness (1984) found that Navajo children in an Arizona community entered kindergarten with a great deal of print knowledge that had been acquired through "natural, meaningful interaction" (p. 26) with print in their daily environment. Most of these children knew that print is used to convey meaning, had well-developed understandings of print conventions in their writing, and could read and write the names of family members. In addition, many of them could write the names of local stores and foods, the names of television characters, and phrases such as "I love you." These observations cast doubt on the often heard generalization that the home environments of Native children do not provide the experiences that are so important in learning to read.

An additional difficulty in the study carried out by Downing, Ollila, and Oliver (1975) is that there was no examination of the children's home backgrounds to substantiate claims about those backgrounds. For example, the statement that the Indian parents were "less conscious of the act of speaking" (p. 313) was unsupported, and appears to have been based on prior assumptions made by the researchers. In addition, neither observations nor interviews with parents were used to support claims that "reading materials were rare" and there was "little or no recourse to writing" in the Indian homes (p. 313). The view that contemporary societies can be characterized as literate or non-literate has been challenged by Heath (1983) who found that in both communities she studied, there was a great deal of involvement in literacy that would not have been immediately apparent to an outsider.

Scollon and Scollon (1981) identified a number of differences between Athabaskan and Euro-Canadian orientations to literacy in the community of Fort Chipewayan. They write that the orientation toward literacy held by each culture is related to the culture's "consciousness" or "reality set" (p. 50). They interpret the Euro-Canadian explicit, decontextualized way of speaking, with a "high level of new information" (p. 52) and highly cohesive and clearly bounded structures to be related to a tradition of essayist literacy. They also note that some aspects of English discourse are not only unusual from the perspective of the Athabaskan reality set, but are offensive to it. For example, the explicit conveyance of information, and the public display of one's knowledge are perceived by the Athabaskan to be a sign of disrespect for the listener. These writers speculated that this would cause problems in Athabaskan writing, although "as a reader this may not be so critical" (p. 53).

They also observed that the approach to reading adopted by local Athabaskan children was very different from that of their own daughter, Rachel. In one instance a local Athabaskan boy who was visiting their home picked up a book and, assuming that it was a hymnal, asked them whether they sang from it. In another instance an Athabaskan child was observed to be teaching a younger one how to read by having her repeat lines verbatim that were read to her from the text. In contrast to the Athabaskan child's cooperative repetition, Rachel responded to this kind of activity by predicting the next line in the text. The result was that "she was an anomaly in the eyes of the other children" (1981, p. 61). The Athabascan people generally feel that "The relationship to books is unidirectional." (p. 63), and that for a child to be interested in books would be "out of character" (p, 63). Scollon and Scollon thought that this was due to the strong association of both reading and school with the local Roman Catholic church.

Although these authors have been careful to note that the implications of these observations for the children's reading and writing are very tentative, they do raise some important hypotheses for Fort Chipewayan Athabaskan children's reading. The observation that texts are viewed as inviolate suggests that the children may have been particularly concerned with word accuracy and the construction of text-implicit information. However, the contextualization of knowledge and the construction of meaning from implicit cues in oral discourse could lead to strengths in elaborative aspects of reading.

However, such hypotheses are based on the roles of traditional Athabaskan culture and Catholicism in developing the children's stance toward reading in English. Although this could have been true with respect to Fort Chipewayan children, Cronin (1979) found that sixteen Lac La Biche Cree children involved in a study of story structure had a well-developed knowledge of the traditional Anglo-European story structure even though this structure differs greatly from that of Cree stories. She felt that the mass media and schooling had had a strong influence on the children's reading.

Reading in the Classroom

Several studies have found that communication patterns in schools tend to be different from those observed in Native communities, and it has been suggested that these differences create learning difficulties for Native children. Some of the differences include the use of pause times in oral discourse, the degree of freedom accorded the children to direct their learning, expectations for children to publicly display their knowledge, and the use of verbal explanations as opposed to observation and modelling in instruction (Erickson & Mohatt, 1982; Kaulbeck, 1984; More, 1987; Pepper & Henry, 1986; Scollon & Scollon, 1981). These kinds of differences have also been found in studies of Native children in reading lessons (Au & Jordan, 1981; Chambers, 1988; Van Ness, 1981; White, Tharp, Jordan, & Vogt, 1989).

The research carried out at the Kamehema Early Education program [KEEP] has been the most significant and influential work in the study of reading and cross-cultural differences in communication. According to Au & Jordan (1981) this project was begun in 1971 to improve the school achievement of inner-city Native Hawaiian children, with the primary focus on reading. In the first two years of the program a phonics-based program yielded little success, but when an integrated, meaning-based approach to instruction was developed, the children's mean percentile scores on the Gates McGinitie test rose from eight to 67 in four years. Some of the changes in the program included the integration of the language arts, the use of teacher-child conferencing, the encouragement of peer-interaction during reading lessons, and an emphasis on activities to encourage the children's use of background knowledge as they read. One of the key factors in the success of this program is thought to be its ability to accommodate and facilitate the children's use of a traditional Hawaiian discourse structure, the "talk story," into reading lessons. This is a structure in which speakers jointly construct a narrative through overlapping turns.

The use of the "talk story" is the most widely discussed aspect of this project (eg. Lindfors, 1987; Wilcox, 1982). The importance of culturally appropriate instruction can be seen in an experimental study in which Native children demonstrated significantly more behaviours related to reading achievement [such as time spent reading] with a teacher who used Hawaiian discourse structures than with a teacher who was unfamiliar with this form (Au & Mason, 1981). However, Au & Jordan (1981) note that the specific nature of the talk story is less important than the process of developing appropriate instruction through multidisciplinary collaboration and close cooperation with the community. With respect to this project's implications for other minority situations they note,

> Roughly parallel situations such as the talk story may be identified, but the exact ways in which elements of such a speech event should be translated into a

> reading lesson are not automatically given (p. 151).

Cross-cultural differences in teaching reading in the classroom have also been observed by Van Ness (1981), and White et al (1989). Van Ness carried out a microethnographic study of the social interactions preceding reading lessons in a kindergarten classroom where the teacher and five of the six pupils were Koyukon Athabaskans. He observed that the teacher's interactions with the children were characterized by a lack of overt control and explicit instruction, and that the teacher's corrective behaviour was subtle, rarely singling out individual children. This style of teaching was consistent with Native styles of teaching observed by Philips (1983) in Warm Springs, Oregon, and Scollon and Scollon (1981) in Fort Chipewayan, but it is important to note that the size of the kindergarten class, and the nature of individual personalities could have been important factors in directing the nature of the social interactions.

White et al (1989) studied the questioning patterns of Anglo and Navajo teachers during reading lessons for grade three Navajo children. They found that the Anglo teacher's questioning had a highly linear structure and emphasized the reconstruction of text-explicit information. In contrast, the Navajo teacher's questions were more fluid in both temporal organization and topic, and drew more on the children's general knowledge and personal interpretations of the text. These writers stress that the study of two teachers is not sufficient for the formation of generalizations, but they noted that the contrast in the teacher's styles is consistent with previous research and theory of Indian and Anglo orientations to learning. The implication of teaching style for the reading abilities of the students remain unknown, because although it was observed that the Navajo children seemed to be uncomfortable with the questioning strategies of the Anglos teacher, specific information about the children's reading abilities was not reported.

Chambers' (1988) research suggests that there is individual variation in how Indian children respond to reading instruction within a single classroom. She carried out microethnographic observations of four sixth grade Indian children's behaviours during reading lessons in an urban British Columbia classroom, and found that the children's participation varied "dramatically" (p. 59) in accordance with each child's "Indianness" (p. 59) which, in the context of her study was the child's ties to a traditional Indian community. She did not, however, report on the relationship between the children's participation and the outcome of that participation in terms of their reading abilities.

Overall, the above studies indicate that Native children may be more prone to difficulties with reading when they are taught by teachers with different cultural backgrounds. However, the same authors who report the presence of cultural mis-matches in communication also cite instances of individuals adjusting their behaviour to the cultural expectations of the other group (Au & Jordan, 1981; Philips, 1983; Scollon & Scollon, 1981). In comparing the teaching styles of an Odawa teacher and a non-Native teacher at an Odawa reserve in northern Ontario, it was observed that both teachers used mixed cultural forms in their teaching (Erickson & Mohatt, 1982). It was noted that the non-Native teacher's style of teaching changed over the course of a year to become more culturally-appropriate, and although he received assistance from an Indian colleague, it was felt that his ability to adapt the classroom was partially attributable to "teacher radar" (p. 168) Au & Jordan (1981) refer to "serendipity" of the teachers as one factor in KEEP's success, and Philips (1983) notes that many non-Indian teachers at the Warm Springs community intuitively adapted their teaching style in accordance with the children's responses to what they did. When these observations are taken into account with the fact that the revised KEEP program was built along principles highly similar to those of contemporary whole language approaches to the teaching of reading (Goodman, K., 1986), it appears that the overall quality of teaching, as well as cultural background, is important in shaping the children's reading. In this respect, it is important to note Kleinfeld's (1974) comment that focusing too heavily on cultural differences can cause us to lose sight of "fundamental principles of education" (p. 74).

In addition, Erickson (1988) cautions that the relationship between communication style and the children's reading ability in KEEP remains open to interpretation. He suggests that there are two plausible explanations for the success of the children in KEEP. First, the use of "culturally congruent" (p. 255) instruction would decrease the information processing load for the children so that instead of focusing on interpreting unfamiliar communication patterns of the teacher, they could devote their attention to comprehension of text. The second interpretation is that the use of culturally-appropriate communication patterns "depoliticizes cultural difference in the classroom" (p. 255). These two explanations are not mutually exclusive, but while the former explanation focuses on the instructional methods, the latter focuses on the nature of the teacher-child relationship within the broader context of learning. Support for this interpretation comes from the research of Toohey (1977) who found that Cree children in an Alberta school adjusted their behaviour in accordance with the control exercised by their teachers. She concluded,

> The notion of cultural conflict becomes irrelevant when the differential power of the teacher to direct classroom events is recognized. (p. 71).

Similarly, Erickson (1988) suggests that interactional difficulties between teachers and students from other cultures may the result of, rather than the cause of conflict between them because "even major interactional difficulties due to cultural difference may be sidestepped" (p. 219) in the absence of such conflict.

In summary, then, there is evidence to suggest that cultural differences in ways of teaching and learning may make it more difficult for many Native children to learn to read in school. However, whether or not this occurs in specific classrooms would depend on the nature of the teacher, and his or her relationship with the children in the broader context within which schooling takes place. The following section of this chapter will discuss the importance of this context.

Political Contexts of Learning to Read

Just as Toohey (1977) argued that to focus on cross-cultural differences in Native education is to ignore the broader social and political contexts within which those differences develop, Ogbu (1981; 1987; 1988) argues that cross-cultural differences in literacy acquisition cannot be understood apart from the macrocultural environment. Although Ogbu (1987) recognizes the value of projects such as KEEP in meeting the immediate educational needs of minority students, he suggests that they leave many questions unanswered in terms of accounting for minority children's school performance. He also argues that the focus on shortterm intervention for minority children directs attention away from broader and longer-term issues in their literacy learning.

Ogbu's basic premise is that cross-cultural differences in cognition, language, or communication style cannot adequately explain minority children's low rates of literacy because children whose cultures have greater differences vis a vis the dominant American culture frequently achieve higher success in school than those that have a longer history of interaction with the dominant society. An alternative explanation, Ogbu proposes, is that the degree of cultural difference is not as important as perceived opportunities for economic and political advancement in American society, and that this perception is drawn from the historical experience of various minority groups. Hence, "castelike" or "involuntary" (1987, p. 321) minorities such as American Blacks and Native people have much less success in literacy attainment than members of some immigrant minorities. He suggests that castelike minority cultures develop secondary characteristics that stem from resistance to the dominant culture. As Freire and Macedo write (1988), to refuse to read the word of the dominant society is perhaps a positive affirmation of one's cultural identity.

McDermott(1987) cites microethnographic observations to support a rationale for a resistance model of minority children learning to read. In describing the behaviour of

Black children assigned to low ability reading groups, he notes that they seemed to be actively working against learning to read and that,

> they reject the teacher's code and transform their minor differences in time and space into large differences defining the classroom as the scene of the battlefield between the races (p. 202).

Similarly, McDermott cites a number of studies showing a relationship between peer orientation and dialect switching in Black youths, and the selection of non-readers as "the centre of all peer group activities" (p. 194). He concludes,

> reading skills do not recommend an actor for leadership. Indeed the acquisition of such skills can exclude an actor from peer group ecology of games (p. 195).

He suggests that by participating in "subcultures specializing in disruption and failure" (p. 194), children of low-status minorities actively create their own reading difficulties and because this orientation affects their capacity to attend to print, reading disabilities are the long-term result.

Ogbu's explanation for minority group failures in literacy has been criticized for its grouping together of diverse minority cultures (Trueba, 1987). However, Fisher (1976, 1980) notes that the contemporary history of North American cultures has been characterized by a loss of economic and social control to the dominant society, and that structural racism and job ceilings contribute to the "castelike" (1980, p. 12) status of Native North Americans. With respect to the role of schooling in this process,

> In the past, it has been the Indian student who was asked to integrate: to give up his identity, to adopt new values and a new way of life. (NIB, 1972; p. 25).

Mohawk (1985), in discussing the relationships among language, schooling, and culture for Indian children writes,

> The children resist these linguistic pressures, because it is even more painful to lose identity with the group than it is to be rejected by the [schooling] institution (p. 104).

The possibility for personal identity conflicts in literacy becomes even stronger when one considers the often inaccurate, and occasionally offensive, images of Native people that appear in local school textbooks (Decore, Carney, & Urion, 1981).

Wolcott's (1987) ethnographic observations of Kwagiutl children in a British Columbia school were consistent with the above point of view. As a teacher in the community he found resistance to his teaching to be so strong that he likened his relationship with his pupils to that between an enemy guard and prisoners of war. In the pupils' writing he found explicit hostility toward himself and his society, which sometimes became so strong that the children stopped writing altogether. He felt that this was due to their anger at the "whole cultural milieu" (p. 146) and the students' perception that he and the school represented the dominant and oppressive society. It is important to note, however, that in Wolcott's writing there are statements indicating disapproval of the local culture and it is possible that his pupil's response was at least partly a personal resistance to his attitude. For example, he listed cleanliness, courtesy, and responsibility as examples of values that the local children might learn from his culture through the medium of his teaching.

As Erickson (1988) suggested, the interpersonal relationships among pupils and teachers may be strong enough to reduce the educational consequences of conflicts between the cultures that are involved in the school, particularly when the local community has control over the educational process. In addition, Freire and Macedo (1988) note that by recognizing and using minority children's language and knowledge, resistance can turn to a positive force in developing literacy. With reference to children in aboriginal societies, Ashton-Warner (1962) described a program in which Maori children were encouraged to write and to read words that were emotionally-charged in the context of their everyday life, and she observed that the children had far less difficulty mastering the print forms of these words than they did with the standardized texts and basal readers. Thus, although it is likely that cultural conflict plays an important role in Native children's learning to read, the implications of the conflict for specific children would likely depend on the nature of their community experiences and the capacity of the teacher of reading to take that conflict into account.

Summary

For the purpose of this study, reading is viewed as an interactive process in which one uses both print cues and prior knowledge to infer the meaning intended by an author. The literature on Native children and their reading has identified a number of potential difficulties that Native children might have in this process. These difficulties include school texts that may be incongruent with the knowledge they bring to school, communication and learning styles that differ from that of their teachers, and a broader milieu of political and cultural oppression. None of these potential difficulties would, however, be an inborn consequence of being Native, but they grow out of complex interactions between the child and society. Hence the implications for specific children would be variable.

This review of the literature found that many of the conclusions drawn about Native children's reading remain very tenuous, and there are a number of problems surrounding assumptions about the homogeneity and deficiencies of Native people. References to their biological endowments for intelligence, capacity to think abstractly, to be aware of language, and to interact successfully in the classroom, all assume that Native people are somehow deficient. Yet there is no research evidence to support the existence of these deficiencies.

The review has also identified a number of cultural processes associated with reading and indicated that because these process are interactive, the specific implications of each remain tentative and dependent on the context within which the child is learning. These include learning styles, communication patterns, alternative views of what reading is, and the phenomenon of political resistance. While all these factors are thought to be related to reading, there has been little study of their impact on reading strategies and attitudes of Native children. The one exception to this is KEEP where, when the school was the locus of change, there was dramatic improvement in the children's reading. This project provided substantial evidence that, at least in the inner-city Native Hawaiian context, children's reading difficulties stemmed, not from inherent deficiencies in the children and their culture, but in the adequacy of the school to meet the children's needs.

Although they are not generally identified as strengths in the context of Native education, the preceding review did identify areas where Native children are perceived to have characteristics that are potential strengths in learning to read. These would include strengths in visual processing of information, and a holistic, self-directed approach to learning, with an emphasis on the construction of meaning from a variety of cues. However, it is not clear how and when these would be applied to reading.

Chapter 3

METHODOLOGY

This chapter will describe the methodology of the study. An overview will first be provided of the nature of the study and my role in it. Second, the procedure for sample selection will be outlined. Third, descriptions will be given of the sample and the classroom context in which the children were learning to read. Fourth, the processes involved in gathering the data will be outlined and finally, the methods used to code and interpret the data will be given.

Nature of the Study

The basic purpose of the study was to describe the use of text information and background knowledge that was evident in Cree children's reading, and to describe their views of their own involvement in reading. Several aspects of this study were based on a qualitative paradigm of enquiry, as described by Borg & Gall (1989). These include the open-ended nature of the research questions, the objective of describing a limited number of cases rather than forming generalizations, and the role of the researcher in data collection and analysis.

With respect to the latter, some analysis of the data began while I interacted with each child, as decisions had to be made about which stories to give to the children, and when and how to follow-up on what they said. Some of these decisions were intuitive in nature. Moreover, it was recognized that during the research process, each child and I were "inseparably connected" (Borg & Gall, 1989, p. 384). Just as their responses were shaped by their perception of the context, of which I was an important part, so were my behaviours often based on how I perceived them. Johnston (1984) notes that, "an oral reading diagnosis is in a sense 'negotiated' by the examiner and examinee via their verbal and non-verbal interaction" (p. 153). As Harste, Woodward & Burke (1984) point out that the data in this kind of study are not

> ready to be picked up but constitute the results of a transaction which occurs when the teacher or researcher meets the child (1984, p.49).

Throughout the study, I listened to the audiotapes that had been made daily of my transactions with the children. In addition, I consulted with my thesis supervisor, with the children's teacher, and with colleagues to try to ensure that I was not placing undue constraints on what, or how much, the children would reveal.

Sample Selection

The fifteen children in the preliminary sample were Cree children who resided at the same reserve and attended the same grade three classroom. In the process of selecting this group, major considerations were accessibility, potential cooperation from the children, parents, teachers and school administration, and congruency of the study with the class Language Arts program. With respect to the latter, both the teacher and the local Language Arts consultant had been active in using whole language (Goodman, K., 1986) approaches to teaching reading, and they felt that being able to identify the children's individual needs was an important aspect of the program. Moreover, talking about their reading was an integral part of the children's classroom experience, and so it was felt that the research tasks would be similar to those to which the children were accustomed.

Permission from school administration was obtained on the basis of a written request and an interview about the nature of the research. Permission from the parents was obtained during parent-teacher interviews when the parents were provided with written information about the study and it was explained how the study related to the children's reading program. Permission from the children was obtained individually prior to each child's involvement in the study. Every attempt was made to ensure that the children recognized the voluntary nature of the study, and that they recognized their right to withdraw at any time.

Description of the Sample

The preliminary sample consisted of eight girls and seven boys. They were all status Indians who resided at the same Cree reserve with a population of approximately 1,000. The reserve is within 100 km. of a major urban center, and the socioeconomic status of the families on the reserve is varied. These children attended grade three class with ten non-Native children from the surrounding area. Their mean age was eight years five months. Three of the children had repeated a grade, and nine of the children had attended class with the same teacher when they were in grade two.

All of the children in the preliminary sample were administered tests and interviewed in accordance with the procedures that will be outlined later in this chapter. Initially it was planned to carry out in-depth analysis of the data for four children who, on the basis of a preliminary analysis, represented various types of reading orientations that might be apparent in the group. However, when the data had been collected and preliminary analysis was attempted, such types were not apparent, and it was decided to carry out the in-depth analysis on the three children who had obtained instructional levels at or above the third grade level, and one child who had obtained an instructional level of upper grade two on the tests. These children were selected because there is so little information available on Native children who are successful readers, and it was felt that information about these children might shed light on what the less successful readers could be learning. They are not considered to be representative of the group as a whole.

The four children whose data was analyzed were Justin, Mary, Karen, and Debbie. None of the children had repeated a grade, and Karen was the only child who had had another teacher for grade two. Their ages ranged from eight years to eight years five months.

The Classroom Context

According to information provided by the teacher and several observations, the classroom was based on a whole language (Goodman, K., 1986) approach to learning. The teacher, Mrs. Nelson, said that her teaching had been influenced by writers such as Frank Smith, Ken Goodman, Margaret Meek Spencer, and Don Holdaway, but she also felt that her experience working with Native people had shaped her student-centred education philosophy. In general, her classroom was a busy place with a great deal of talk, movement, and children's involvement in diverse activities. There was a warm relationship between Mrs. Nelson and the children, and little overt exertion of her authority was evident. For example, if a child was not involved in a productive activity, she would typically put her arm around the child and talk to him or her about formulating "a plan," or ideas for what the child could do. In addition, Mrs. Nelson demonstrated obvious enjoyment in being with the children frequently laughing with them and talking with them in an informal way.

The children were involved in reading, and being read to, throughout the school day, but at least 45 minutes daily was set aside specifically for reading activities. This period was modelled after Holdaway's (1980) suggestions for an individualized reading program in the elementary classroom. The children freely selected their own texts from a variety that were available in the classroom, read these texts alone or with partners, recorded what they had read and a brief response to the text in a "reading record," and carried out individual or group projects to share what they had read with the rest of the class. These projects were carried out with minimal direction from Mrs. Nelson and included a variety of activities such as a Reader's Theatre presentation of a story, the illustration of story events through the use of plasticine on coloured paper, and the use of a xylophone to accompany the singing of a song found in a book. The latter was the idea of a group of children who located the xylophone independently. They were sent to the hallway by Mrs. Nelson to avoid disturbing the others, but she later joined them to pick out the notes and sing with them.

Throughout this period, Mrs. Nelson circulated among the children conferencing with them about their reading, providing instruction to small groups, and providing assistance with the projects. Her primary goal was to encourage the children to seek meaning from texts so she placed little emphasis on skills-related instruction, such as phonics. There was little whole-class instruction in reading, and the children were never observed to be completing worksheets or workbooks, although Mrs. Nelson said that she sometimes used these when it was necessary for specific children.

It is important to note that the children's learning of reading was extended throughout the school day, as Mrs. Nelson made extensive use of a variety of reading materials to heighten the children's interest in various topics and to develop their knowledge. One example of her practice of language across the curriculum was when a new weigh scale arrived for the class and she gave it to a group of children at lunchtime, asking them to read the instructions and put the scale together. The instructions were written at an adult level, but the children put the scale together through a great deal of shared effort, and Mrs. Nelson said that she had done this deliberately to enhance their reading, as well as their ownership of class materials.

In addition, she actively encouraged the children to make links between their reading and their writing, and the children were actively involved in the latter nearly every day. They regularly shared their writing with the teacher and others through writing conferences and through publishing what they wrote. During writing conferences, she would encourage the children to consider their readers' needs, and this was reinforced through daily conferences in which the author would read his or her piece aloud to the other children, and would then be questioned by them. On one occasion a new boy in the class was sharing his work for the first time. He had just written "I like the sun. The sun is funny." The other children said they liked this work but they wanted to know what was funny about the sun. They seemed to be genuinely interested in what he had written, and he seemed to be both surprised and pleased at their interest. Mrs. Nelson rarely interfered in these class conferences, but she would sometimes clarify the children's questions and she would often relate their own writing process to that of authors whose books the children had read.

Four of the children in the class were not yet reading at the grade one level, and Mrs. Nelson felt that they needed much more one-on-one assistance in their reading than she could provide in this classroom. She was always looking for ways to improve her instruction, and was continually involved in professional upgrading activities to do so.

Collection of Data

Overview

Prior to collection of data, I visited the classroom twice and participated informally in class activities in order to develop mutual familiarity and rapport with the children. On the first visit the primary activity was conferencing with the children and providing assistance while they worked on writing their autobiographies. On the second visit, the primary activity was helping them prepare performances for a school concert. The children quickly accepted my role as participant observer, and frequently requested my attention and assistance. They had already become accustomed to having a number of visitors in the classroom, and they seemed to appreciate having another adult in the class to show interest in them and to provide help.

When the study began the children were withdrawn individually from the classroom for one-on-one sessions during which they were administered the reading tests and were interviewed. These sessions usually took place in an art room, and when this room was in use, they took place in the counsellor's office, library, or a vacant classroom. These locations were all private and generally free of distractions.

The sessions took place over a period of four weeks in November and early December, with each child involved in at least four sessions. Neither the length of the sessions nor their order were predetermined. Instead, these were left flexible to accommodate the class schedule and other factors such as the child's attentiveness.

All sessions with the children were audiotaped. The children were aware of the audiotaping and gave their permission for it. They did not seem to be unduly distracted by the tape recorder.

Test Description and Administration

For collecting data on the children's reading strategies, the informal reading inventory developed for the Alberta Diagnostic Reading Program (1986) was used because the stories had been developed for, and field tested with Alberta children in both rural and urban areas of the province. In addition, there has been general agreement among local reading specialists that the stories are generally well-written, and that the topics and the inclusion of illustrations make them compatible with the types of stories that children normally read in the classroom. It was also felt that the questions are well-designed to test for the use of text-based and knowledge based information.

This test was administered according to guidelines adapted by Malicky (1987) for the Bader Reading and Language

Inventory, except that the level of the first passage administered had to be based on the teacher's estimate of the child's level because the test does not have accompanying word lists to discern the beginning level. This lengthened the process of test administration because Mrs. Nelson was not accustomed to judging the children's reading in terms of grade levels, and in some cases the initial story that was administered was up to three grade levels below the child's instructional level.

The child was requested to read the story silently and was told that following the silent reading, the story would be read orally. Prior to reading the story, the child was also told to try to remember as much as possible from the story so that he or she could tell me about it and answer questions about it later.

After the story had been read silently and orally, and had been retold, questions were asked from those provided in the program for each story, and when necessary, they were paraphrased to make their meaning clearer to the child. The purpose of using comprehension questions was to check whether there was additional information that had been processed by the child but had not spontaneously been made explicit. Therefore, only those questions were used that had not been correctly answered in the child's retelling. In addition to the questions that accompany each story, follow-up questions were asked to elicit more information about the child's background knowledge and strategies. For example, the child might be asked the meaning of a word that had not been identified successfully, or might be asked to explain a particular recall statement.

This procedure was largely the same as that recommended by Alberta Education (1986) for its informal reading inventory with the exception of having the child silently prepare for oral reading. This meant that the oral passages were read twice instead of once, with the possibility of inflated scores for oral reading. This decision was made because in the children's classroom there was a strong distinction between private reading and public reading, and the children were actively encouraged to prepare for the latter. As Malicky, (1987) points out, this practice is "more defensible pedagogically" (p.43).

This entire process was repeated with stories at higher or lower grade levels until the child could no longer address at least seven out of ten questions through unaided retelling or by direct responses to the questions, and this was determined to be the child's frustrational level. Discretion was used in deciding to administer another passage at frustrational level because it was frequently found that a child might be more successful at a higher level than a lower one. This may have been due to familiarity with the task, the child's attentiveness at that particular time, and to the structure or topic of specific stories. Thus, there would often be two or more stories administered at the child's frustrational level to ensure that his or her upper limit had been reached.

The child's instructional level was determined to be the highest level at which he or she could successfully address at least seven out of ten questions through unaided recalls or direct responses to those questions. This criterion varies from others normally used (Gillet & Temple, 1986) because word accuracy rate was not a consideration in establishing the level, and because it was frequently the same as the child's independent reading level as defined by Alberta Education (1986).

When the child's instructional level was identified, alternate forms of the stories were administered so that data from two stories read orally and one story read silently could be obtained at instructional level, and when these could not be obtained, data from the level immediately lower was used.

Interview Data

The interviews carried out in this study were semistructured (Borg & Gall, 1989; Guthrie & Hall, 1984; Merriam, 1988) because some specific questions were developed to focus on certain kinds of information. The selection, wording, and ordering of questions was left open-ended so that it would be possible to follow the child's leads during the interview. The administration of the interview questions was informal. As each child talked, I adapted and used questions to follow up on what the child had said, and to prompt the child to talk about aspects of reading that had not yet been raised spontaneously. The bulk of these conversations took place after the reading tasks had been completed, but some of the questions were asked between reading tasks and at the ends of sessions. This was because what the child said or did during reading was conducive to discussion of specific interview topics. Thus, the nature of the interview varied a great deal from child to child.

The initial reading interview guide was developed by compiling questions previously developed for children's reading interviews(Goodman and Altwerger, 1981; Spadafora & Lysakowski, cited in Malicky, 1987) These questions were grouped according to topics such as "learning to read," "reading strategies," "reading preferences" and "functions of reading."

From most of the children, a great deal of additional information was gained about their perceptions of life in general, as they often talked freely about such topics as home events, dreams, adventures, and fears. Although these topics may have been implicitly connected to the children's reading, only the information that contained explicit references to reading was included in the findings of the study.

Coding of Data

Three types of data were coded in the study: miscues, recall of stories, and responses to comprehension questions. The miscues were drawn from the two stories read at the highest oral levels before frustrational level was reached. The recalls and responses to comprehension questions were drawn from the same two stories, as well as from one story read silently at the child's instructional level. In some cases, data from the child's frustrational level was analyzed as well, but this analysis was always carried out separately.

Miscues

A full transcription was made of the child's reading miscues, including all insertions, omissions, and substitutions, at the child's instructional level and below. Corrected and uncorrected miscues were listed separately, and coded according to Malicky's (1987) adaptation of Goodman & Burke's (1972) system of miscue analysis. The miscues were coded as Y, P, or N as follows:

1. Graphic Similarity

Y At least 50% of the letters in the text word are contained in the miscue.

P At least one, but fewer than 50% of the text word's letters are contained in the miscue.

N None of the letters in the text are represented in the miscue.

2. Sound Similarity

Y At least 50% of the sounds in the text word are contained in the miscue.

P At least one, but fewer than 50% of the sounds in the text word are contained in the miscue.

N None of the sounds from the text word appear in the miscue.

3. Grammatical Acceptability

The sentence is read with all uncorrected miscues made by the child included.

Y The sentence containing the miscue is grammatically appropriate in the entire passage.

P The miscue is grammatically acceptable only with respect to the portion of the sentence that came immediately before or after it, or the miscue is grammatically acceptable with respect to the sentence but not the entire passage.

N The miscue is not grammatically appropriate in even part of the sentence.

4. Semantic Acceptability

The sentence is read with all uncorrected miscues made by the child included.

Y The miscue is meaningful with respect to the entire passage.

P The miscue is meaningful with respect to the part of the sentence that came before or after it, or the sentence is meaningful on its own but not in the rest of the passage.

N The sentence is not meaningful.

5. Meaning Change

The single miscue is read in the context of the original sentence in the text.

Y The author's meaning is substantially changed, or the miscue makes the sentence meaningless.

P There is a minor change in the author's intended meaning.

N There is no change in the author's meaning.

Unaided Recalls

The child's retelling of the story was transcribed verbatim for analysis, and was divided into clauses with each clause considered to be one recall. The recalls were then coded according to one of seven categories in accordance with text information and/or reader information that appeared in the recall. Guidelines for coding the recalls were based on those developed by Fagan (cited in Malicky, 1987), and these are outlined below:

A. Text Exact

The recall consists of verbatim information from the text. There may be minor variations of text information and /or omissions of text information.

B. Text Specific

The recall contains information that can be located in a specific part of the text, but this information has been paraphrased by the reader.

C. Text Embedded

The information in the recall is specific to the text, but the recall contains information from more than one unit in the text.

D. Text Entailed

The recall contains a superordinate statement that connects information from at least two one units in the text.

E. Text Inferential

The recall contains information that has been inserted by the reader to fill in gaps left by the author.

F. Text Experiential

The recall contains information that has been inserted by the reader and compatible with the text, but the nature of the information is such that other readers would not be expected to insert the same information.

G. Text Erroneous

Erroneous information has been supplied by the reader. There may be an error in specific text information, or the reader may have included information that is incompatible with the text.

Question Data

The questions accompanying each story had previously been coded by Alberta Education (1986) and the categories were based on those developed by Fagan (1984). Correct responses were coded according to the instructions that accompany the program, and the categories are outlined as follows:

1. Attending/analyzing

The question asks for a specific detail from the passage.

2. Synthesizing

The question asks for information that requires the reader to synthesize text information through, for example, sequencing, summarizing, or explaining cause and effect.

3. Inferring

In order to answer this type of question, the reader needs to supply information that is not explicit in the text, by using text context and his or her background knowledge.

4. Associating

The reader is requested to re-read a sentence from the passage and then to explain the meaning of a word in that sentence. This question requires knowledge of vocabulary and/ or the use of context cues to identify the meaning of the word.

If a question had been omitted it was neither scored correct nor incorrect. Responses to follow-up probes were not scored, but were used to provide qualitative information about the children's responses.

Inter-rater Reliability

Inter-rater reliability with the thesis supervisor was 90% or higher for coding of miscues, recalls, and responses questions.

Interpretation of Data

Test Data

After miscues, unaided recalls, and responses to questions were coded, the number of responses made by each child in each category was tallied. For each child, the percentage of responses in each category was used to indicate the nature of the knowledge used by the child in reading.

Use of graphophonic, syntactic, and semantic knowledge for word identification was inferred from the miscues, in accordance with guidelines discussed by Goodman & Burke (1985) and Malicky (1987).

Use of text information and background knowledge in comprehension was inferred from the relative proportion of unaided recalls in various categories and the child's success rate in answering comparable questions. Interpretation of these were made in consideration of suggestions from Alberta Education (1986), Fagan (1987), Johnston (1983) and Malicky (1987).

Additional information about the child's word identification was obtained from the examination of the reading speed in accordance with normative guidelines summarized by Harris and Sipay (1984), and comparison of the child's word accuracy rate with Gillet and Temple's (1986) standards for various reading levels. By themselves, these do not provide insight into the processes used by the child to identify words; however, in conjunction with other data, they can help in the interpretation of the child's overall strengths and weaknesses.

Originally it was intended in this study to compare the child's use of knowledge in oral and silent reading, but it was felt that there were too many other variables, such as passage topic, and order of administration for this comparison to be valid. For the same reason, discrepancies in the child's use of knowledge across passages at a similar level were not analyzed.

Interview Data

Tapes of the interviews were transcribed, and preliminary identification was made of the portions that indicated how the child viewed various aspects of reading, and these were grouped under the topics of learning to read, reading preferences, and reading strategies. Then, the child's responses in each topic were reviewed to discern underlying consistencies that would reflect the child's perception of reading and his or her involvement in reading.

Synthesis of Data

For each child, comparisons were made across findings from the miscue analysis, unaided retelling, responses to questions and information obtained from the interview. Then, comparisons across children were made with respect to their use of text information and background knowledge, and their views of their involvement in reading.

Chapter 4

FINDINGS

Introduction

The findings from the interviews and reading tasks for each child will be presented in this chapter. The findings will address each child's view of his or her involvement in reading, level of achievement in reading, and results on miscue analysis and comprehension tasks. A synthesis for each child will then be presented, and comparisons and contrasts made with respect to the findings for all four children.

Karen

Involvement in Reading

Karen thought she had learned how to read at home and at school. At home, her parents and grandparents helped her learn to read by buying her "easy books" and telling her how to read them. At school her teachers also helped her learn to read. Although she could not specify how they had done so, she remembered being read to, and reading stories such as "Sing A Rainbow" and "One, Two. Buckle My Shoe" in grade one.

Karen said that learning to read at school had been difficult for her because of her shyness. That is, she had been afraid to read out loud in class because she thought the other children might laugh at her. Her grandmother helped her overcome this problem by telling her to speak out loud in class and the result was, "In two weeks my grandma learned me not to be shy so I read out loud and they never made fun of me." Although she felt she had overcome her own shyness, Karen said that her younger sister is currently experiencing the same problem and Karen is trying to help her with her reading at home.

Sharing her reading with her peers seemed to be of ongoing importance for her because she talked at some length about the fun they have reading together in her current classroom, and she noted that they often help each other with the process. Karen said that one good thing about reading was that "You could become a teacher and help children, like." Her responses to the test passages and questions clearly demonstrated that she found pleasure in reading. She frequently smiled and laughed when reading and talking about humorous aspects of stories. In one instance, she laughed at an image she mistakenly made when she said,

> and the pigs mooed - no, _not_ the pigs mooed(laughs). The pigs oinked and the _cows_ mooed.

She also told me humorous stories, including one about her sister spilling pudding all over herself at home.

Consistent with her reading behaviours, Karen said she likes to read "nursery rhymes and funny things," and her own book collection includes versions of "The Roadrunner," "Little Red Riding Hood," "Goldilocks," and "Donald Duck." She said that she buys her own books to read at home, and also obtains them from the city library when accompanied by her aunt or grandmother.

When Karen was asked to tell me about her favourite story, she gave an account of a book whose existence could not be verified, even though she said she had obtained this book at the library. The following is a part of what she said:

> It's about Naughty Amelia Jane. She's so bad. She wasn't made like the other toys (yawn). She / she always been pushing everybody and never learned her manners. When she gets something from somebody she never says thank you. And when they say go get something she doesn't. She gets something like cigarette butts. I'm on the tenth chapter. I'll be on the eleventh and then I'll be done. I can hardly wait to see what happens next...

When asked what she thought might happen next in the book, she went on to speculate that Naughty Amelia might be taken back to the toy store where they would "wrack her up," and make her into a regular doll. Although this story could not be traced to a written text, Karen clearly linked it to a book, and later, when we were talking about her older sisters, she said that one of them had written it, dedicated it to her uncle, and had flown to Toronto to have it published.

Overall, Karen's construction of this book was convincing, as were other stories she told me, but there were many discrepancies among these stories. For example, in response to a vocabulary question, she went into a great deal of detail about the hot tub in the home she shares with her mother, where she bathes and plays with her friends; yet, she later said that she lives with her grandmother because her parents have been "on holidays" for over a year. Karen did not know where they were or whether they were coming back.

The truthfullness of Karen's stories was not challenged in the research context but when I asked her whether she enjoyed making up stories, her reply was affirmative. She said that she makes up stories at night until she falls asleep, and she usually prefers keeping them to herself than telling them to others.

Reading Level

Karen was able to meet criteria for an instructional level of beginning third grade, with a normal rate of reading and 97% word accuracy at this level when reading orally. However her silent reading instructional level, at mid-grade two, was a half-year lower than her oral reading level.

Miscue Analysis

Karen said that when she comes to a word she does not know, she skips it or sounds it out, and this statement was consistent with the findings from the miscue analysis. A summary of this analysis is provided in table A-1. When her twelve uncorrected miscues from two stories at the beginning grade three and mid-grade two levels were analyzed, it was found that 50% were highly graphically and phonically similar to the text words, and 50% were either omissions or insertions.

In comparison to Karen's use of graphophonic cues, she had a low level of success in using knowledge of language to predict unfamiliar words. Twenty-five percent of her miscues were highly grammatically acceptable and only 8% were highly semantically acceptable. Although the majority of her miscues were not acceptable with respect to language conventions, it is important to note that the percentage of her miscues in the "partially acceptable" categories indicate that she was attempting to make use of language to predict words. Forty-one percent of her miscues were partially grammatically acceptable and 42% were partially semantically acceptable and, in these cases, Karen used language cues in parts of sentences, rather than the text as a whole.

Eighty-three percent of Karen's uncorrected miscues substantially altered the meaning of what she read. Since her overall word accuracy rate was high, this percentage is not inconsistent with her ability to later reconstruct the author's meaning, but it is important to note that there were several instances where she was able to reconstruct the meaning in spite of having made a meaningless miscue. For example, she read "Mrs. Bear was so cont-see" for "Mrs. Bear was so concerned," and later said that "she panicked." In addition, she read "She purred in the window" for "She peered in the window" and recalled this as "She looked in the window."

Forty-eight percent of Karen's miscues were corrected. In 73% of these miscues there was no graphic or phonic similarity to the text words and this indicates that Karen was using graphophonic cues to self-correct. Sixty-four percent of the corrected miscues had resulted in high meaning change, but this figure is actually lower than that for uncorrected miscues, and so it does not indicate heavy use of meaning in Karen's monitoring of her word identification.

Comprehension

Karen said that before she reads a story she thinks about what it is going to be about, and her unaided recalls and responses to questions did indicate that she was attending to and analyzing text information. A summary of the analysis of these recalls is provided in table A-1. Of 59 unaided recalls for two stories read silently and one story read orally, 49% were paraphrases of text information and 12% were statements in which portions of the text were repeated verbatim. In addition, she was able to answer all three attending/analysis questions that were administered with the passages at her instructional and independent levels, and she was able to answer two out of three of these for stories at her frustrational level.

Although Karen was able to comprehend text details, she did not tend to make explicit connections between them, as only 7% of her unaided recalls were text embedded. Karen was able to answer both synthesis questions at her instructional level, but at her frustrational level she started to have difficulty with these, answering only one of five correctly.

Although she had some ability to synthesize information, only one of Karen's 59 unaided recalls was a superordinate statement. She said that she did not know what a main idea is and she did not understand its relationship to the title, saying that the purpose of the title is for the children to be able to record what they have read in their classroom reading records. Her low awareness of the main idea was also evident in her statement that when she wants to remember what a whole story is about, she reads "the part that rhymes."

Karen was able to use her background knowledge to answer three vocabulary questions that were asked at her instructional level, but she could not answer any of the ones that were administered at her frustrational level. However, there was evidence that she was trying to use context cues to identify the meanings of unfamiliar words. For example, she thought that "persuade" meant "surprise" in the following context:

> Text: Last week he and his friends had persuaded their parents to let them camp out alone at Floating Stone Campground. To his surprise, Mike's Mom and Dad bought him a pup tent.

In another example, she was recalling a story, which she had read silently at her frustrational level and in which a girl opens a gift and says "Now I can go cycling with my friends." She said she had not been able to read the word "cycling" in a story she read silently at her frustrational level, but her recall indicates that she constructed the story so that it would make sense in light of her own experience:

> K: And she found like with allowance or something like money. And she said now I can go to town with my friends.

With respect to Karen's vocabulary it is also important to note that when she was recalling stories and talking about her own life, she sometimes had difficulty expressing herself. These instances were more frequent with Karen than they were for the other children. The following is an example of this:

> K: He Mrs. Bear took him to her house or something. Whatever its called- I can't- Then they forgot all about the frightening things and they smelled a delicious smell in the air. Some honey.(Speaks unintelligibly and laughs)
> C: That's okay. Take your time.
> K: However you say it. And just dig things.

However, when I asked her if she ever found it hard to talk to her teacher, she replied in the negative, "because I've been able to talk ever since I was a little girl."

Karen's use of her background knowledge to construct meaning from text was strong in her unaided recalls, where 24% of them were elaborations. In comparison to the other children, she had a stronger tendency to add rich details to what she read and these reflected the same strong imagination that was evident during the interview. The following is an example where Karen's recalls enhanced the details provided by the author:

> Text: Suddenly she saw a butterfly with bright blue wings. She stopped to watch it. The butterfly landed on a rosebush. When she looked up she was all alone.
>
> K: And then she saw a butterfly. It went on this rose rose flower. And then was blue pink white red yellow green wings. Colorful. It landed on the flower. And she looked up and she looked back down and the butterfly was gone. Then she was all alone again.

Another example of Karen's ability to embellish the text can be seen in the following excerpt from her transcript where she was reconstructing a story she had read silently at her frustrational level.

> Text: The dragons flew up on the stage. "Oh no! They're real!" she exclaimed.
>
> K: And they flew on the stage. Then Miss Miller said, "I don't know. They might be real. They might be fake. Might be children inside." Then she tried to open their masks but their masks wouldn't open. And she said, "Oh no." She thought they were children. But they were real real real dragons. And she wondered if they were real. But the

dragons blew out some fire...

Although Karen was able to use her background knowledge to answer vocabulary questions and to embellish what she read, and although she could recall substantial portions of text, she had had some difficulty integrating these sources of information to fill in gaps left by the author. Only 7% of Karen's unaided recalls at the beginning grade three and mid grade-two levels involved the integration of text with Karen's personal knowledge for the formation of inferences, and she was not able to correctly answer any of the three inference questions that were asked at these levels. For stories at her frustrational level she neither made independent inferences, nor answered any of the inference questions correctly.

Synthesis

Karen's oral reading was adequate for her grade placement, and it reflected the same rich imagination that she brought to the stories she told in relation to her own background in reading. In both, she seemed to be as concerned with developing personally meaningful stories than as she was with "the facts."

A major purpose for Karen's reading was the sheer pleasure in interacting with the text, and she seemed to focus particularly on humour and rhyme, although Karen seemed to be aware that reading ability will be important in her adult life. In addition, the opinions of other children were important enough to Karen to interfere with her willingness to participate in oral reading in the grade one class, an activity that she thought was important for her own learning.

Although Karen mentioned her parents and younger sister in relation to her reading, the role played by her grandmother was particularly strong. She thought her grandmother played a role in her reading by buying her books, as well as taking her to the library, by helping her with her reading, and by helping her overcome her shyness so that she could read in school.

Karen's use of print cues was stronger than her use of language and meaning cues when she identified words on the test passages. Although it was evident that she was attempting to use her knowledge of language with small units of text, her rate of success in the use of syntax was low and it was even lower for her use of semantics. The majority of her miscues resulted in high change in the meaning of what she read, but she made relatively few miscues in each story and was able to reconstruct the author's meaning in spite of them.

Karen had strengths in the use of both the text and her background knowledge in the construction of meaning from what she read. With respect to the use of text information, she was able to recall a number of text details and answer questions about them, and she was able to synthesize information when questions required this process, but she rarely made superordinate statements and she had a low level of awareness about the concept of main idea.

With respect to her background knowledge, it was apparent that Karen had a strong imagination and she made active use of it in her reading. However, she had some difficulty integrating her knowledge with text information, even when she was given the support of questions to help her structure this integration.

Mary

Involvement in Reading

Mary thought she had learned to read at home by watching Sesame Street. She said that no one had taught her how to read and she has not needed help from any teachers since she was in grade two. However, when she talked about her reading she mentioned telling her mother the words she knows in books, being told by her father and older brother to "slow down" when she reads, and helping her younger brother and cousins learn how to read. Thus, although she viewed herself as an independent reader, it is apparent that she has been involved in various social encounters in relation to her interactions with print.

There appeared to be some rivalry in the home with respect to reading, and this is consistent with the pride she showed when she talked about her reading skills during the interview. One example of this apparent rivalry occurred when Mary told me, very angrily that she has to listen to her older brother read at home but when it is her turn to read to him, "He just reads it by hisself without letting me tell him what it is," and that he hits her when she persists in reading to him. On the other hand, she also talked about her "biggest, biggest, biggest " sister, who is the best reader she knows because, "She knows all the words I don't know." Mary associated this high level of skill development with the fact that "She's big," when she was asked how her sister became such a good reader.

Mary's responses were vague when she was asked questions about what she read on her own. For example, she said that she takes books home from the classroom to read, but when I asked her to tell me about them, she replied, "Uh oh. What book was it?" Similarly, when I asked her what book she is reading in school she said, "I don't know. I never get to see it," although when she was prompted she did remember that it was called Early Schools, that she had obtained it in the classroom, and that it was about "In the olden days how they work. What they sit in. What they write on."

When she was asked about her personal reading, Mary recalled a number of specific words, and her focus on these contrasted with the lower level of concern shown for the meaning of what she had read. For example, when she was asked what kinds of things are easy to read, in contrast to the other children, she responded by referring to words instead of stories.

> Said. That word (spelling) c-a-i-d. And fun f-u-n mmm play p-l-a-y. And lots of words. And word w-o-r-d.

A focus on specific words also occurred when she was asked which parts of stories she tries to remember. She responded by talking about quitting reading when she could not read the word "cemetery" in a book, "Can't remember what it [the book] was called though."

Mary's concern with word identification was also evident during extensive discussions of her reading skills, which she strongly associated with "sounding-out." She responded to many of my questions by modelling this skill in various ways. In the following excerpt from her transcript, Mary was talking about reading her brother's mathematics book and modelling how she had "sounded-out" the words. She responded impatiently when I asked for the meaning of one of the words, as if this was less important than her ability to decode it:

> M: T-teacher. And I said teacher i-is-um and I said is go-going to-to get- get I mean as-ask Billy to-to do some mupple-k-ation. And that's how I learned how to do mupplekation and 12 per cent... And I said mupplekation. That's what I said.
> C: What is mupplekation?
> M: He (her brother) never taught me what

> it was but I know (how to read) the word.
> C: Oh
> M: (Pause) I think it's something like
> Math. Times or something.

There was also an instance in the research context where Mary involved me in word play. This was at the opening of one of the sessions when she responded to my question about her lunch by suggesting that I guess what she had eaten. She then gave me clues such as "pud..." and "jam and ..." After I guessed what she had eaten, she recited her entire lunch by saying, "Chocolate chip cookies, jam and butter-jam and peanut butter sandwich vanilla pudding and orange juice," and she smiled as if she were very pleased with it.

Some concern about her reading skills was revealed in he number of questions she asked me about her performance in comparison to that of the other children. It was also revealed in her agitated tone of voice when she refused reading a passage which she thought would be too difficult, even though it was at her grade level. After looking at the story she insisted, "I won't remember it all. When you ask me to say it, I won't remember it all." Although this concern might have been related to her perception of the research context, her concern with demonstrating her skills was much stronger that of the other children, and was likely related to her perception of the reading process in general.

Reading Levels

Mary's instructional reading level was mid-grade three for both oral and silent reading. Her reading word accuracy rate at the mid-grade three level was 95%. At the fourth grade level it was 96% even though she was only able to answer four out of ten of the subsequent questions for the story, indicating her ability to successfully identify words was more highly developed than her ability to reconstruct the text. Mary's reading speed varied when she read various parts of the texts, but even with extensive pauses in some of the texts, her average reading rate was still above that considered normal for her grade level.

Miscue Analysis

As mentioned previously, Mary talked extensively about how she identified words when she read. She modelled her "sounding-out" strategy in several ways: by spelling words orally, by repeating syllables and blending them, and by saying isolated phonemes in sample words and then blending the phonemes together. Graphophonic-based strategies seemed to dominate her view of how she reads. There was only one instance where she made an implicit reference to the use of context cues. This was when she talked about skipping a word and then going back to read it after she had reached the end of the sentence.

For the miscue analysis, nineteen uncorrected miscues were drawn from the two stories read orally at instructional level, and the summary of this analysis is in Table A-2. In spite of Mary's explicit emphasis on the use of graphophonic cues, it was found that only 37% of her uncorrected miscues were highly graphically similar to the text words, and in 58% of the miscues, none of the letters were the same. Her score for accuracy was even lower when the sounds in the words were compared; 26% of her miscues had high sound similarity and 63% of her miscues had no similarity. These scores were at odds with the strategies that Mary said she used.

In comparison to her use of graphophonic cues, Mary's use of language cues was stronger. Seventy-four percent of her miscues were highly grammatically acceptable, and the remaining 26% were grammatically acceptable in at least part of sentences within which they occurred. Mary's use of semantics was lower than her use of syntax, as 53% of her miscues were highly semantically acceptable, 32% partially semantically acceptable, and 16% were unacceptable. Thus, she relied more heavily on language cues than print cues, and of the language cues, her application of syntax was stronger than semantics.

Seventy-four percent of Mary's uncorrected miscues resulted in no or minor change to the meaning of what she read. This indicates that, contrary to what one might expect on the basis of the interview data, Mary was attending to the meaning of what she was reading and she was likely using the meaning to help her predict the words.

Twenty-seven percent of Mary's miscues were corrected. It was apparent that Mary was monitoring her word identification on the basis of graphophonic cues because 71% of her corrected miscues had no letter or sound similarity to the text words, and 86% of them had not altered the meaning of the story. Mary's strategy of correcting on the basis of sound and letter accuracy was consistent with her emphasis on the skill of "sounding-out" but it differed from the strategy she used to predict the words.

Mary's attempt to identify the word "cycling" in the sentence "Now I can go cycling with my friends," provides some insight into her ability to consider the meaning of what she read when she identified words. This was the last sentence in a story about a girl who hunts for a gift from her grandmother and finds it in a box. When Mary first encountered the problematic word, she could be heard orally decoding it as "seesling" and "sussling" and she asked for help with it. Later, when she was recalling the story, she said that she did not know what the gift had been "cause I couldn't figure that word out." Finally, I asked her to reread the sentence and to tell me whether it made sense to her. In response to this prompt, she instantaneously switched from producing meaningless miscues to highly meaningful ones: "sliding," "skating," and "skiing." And when I told her the word had been "cycling" she spoke very excitedly and said, "It was- it was- it was a bike? How could her grandma put it in a big box?" It was if she had been rearranging several pieces of a puzzle in order to make the last one fit, and she knew that the puzzle could only be in order if the resulting sentences made sense.

Comprehension Tasks

Results on the comprehension tasks are summarized in Table A-2. On two stories read orally and one story read silently at instructional level and below, Mary had a total of 29 unaided recalls. When these were analyzed it was found that 7% were verbatim repetitions of text information and 38% were paraphrases. On the questions in the attending/analysis category she could correctly answer four out of five at her instructional level but she was unable to answer any of the six questions in this category at her frustrational level. She was able to independently attend to and analyze text details as she read, but this was one area where her strategies broke down when the passages became too difficult.

Twenty-eight percent of Mary's recalls were text embedded statements, and she was able to synthesize information to answer questions even at her frustrational level, answering seven out of eight of these correctly. Although the ability to synthesize information appeared to be a strength for her, she made no superordinate statements in her recalls. She said she did not know what a main idea was, but she said that if she wanted to know what a book was about, she could read its title, and this indicates some awareness of the concept.

Mary was able to answer only one out of three vocabulary questions at her instructional level, and she was unable to answer the vocabulary question that was asked at her frustrational level. Additional evidence for some difficulty with word meanings was found in the course of test administration, as she often asked for clarification of questions and many of them had to be paraphrased for her. However, when she responded to vocabulary questions related to the test passages, it was evident that she was able to use context cues, as well as her background knowledge, to understand the meanings of unfamiliar words. For example, she thought that a "hollow log" referred to an old one and she thought that "glanced" meant to look at something for a long time. The latter was consistent with the context, since the character who glanced at his watch was waiting a long time for his uncle.

Mary made little use of her background knowledge to elaborate on the text. Only one of her 29 recalls was in the elaboration category, and this was a detail drawn from a text she had read previously. In addition, Mary made little use of her background knowledge to form inferences; only 7% of her recalls were in the inferential category. She had some difficulty answering inference questions, even at her instructional level, and was only able to answer two out of six of these correctly. This low use of background knowledge is consistent with her poor performance on vocabulary questions, but it is also consistent with her apparent view of reading as a decoding process.

Seventeen percent of Mary's recalls were erroneous and the majority of these were errors of detail. Some of them were due to interference from a story read previously, and others seemed to be related the same kind of impulsiveness that was sometimes apparent in her talk. For example, when she was recalling a story about a bear that looks in a hollow log for bugs she said, "While he was sleeping he spotted this great smell of a hallow log," and she seemed to be unaware that what she was saying did not make sense.

Synthesis

Mary viewed herself as a someone who learned how to read on her own from watching television, and who has been independent in her reading for some time. She made little mention of her teacher or her school-based experiences with reading, but she did often refer to reading experiences at home that had involved others, such as her parents, her siblings, and her cousins.

Mary said that she enjoyed reading, but the skills involved in word identification seemed to be far more important to her than the content of what she read. This was evident in her lack of discussion about texts she had read or liked to read, in her emphasis on oral reading skills when she talked about reading with others, and in her persistence in demonstrating her "sounding-out" skills in response to many kinds of questions about reading. Mary's word identification was developed to a higher level than her comprehension was but, in spite of her emphasis on decoding skills, Mary was able to reconstruct the meaning of what she read to the third grade level.

Also, in spite of her emphasis on decoding skills, Mary identified unfamiliar words more through the use of language cues than through the use of print cues, although she did use the latter more when she was monitoring her word accuracy. When her use of language cues was examined, it was found that she used syntax more successfully than she used semantics, and she had some difficulty with the latter in responding to vocabulary questions.

Her strengths in reading comprehension were her abilities to attend to, analyze, and synthesize text information, and these abilities were apparent both in her unaided recalls and in her responses to questions. It appeared that her ability to synthesize information was a particular asset for her, as she was able to successfully synthesize information in response to questions even at her frustrational level. Yet, she made few superordinate statements in her independent recalls.

Mary made little use of her background knowledge to form inferences in her recalls, even in response to questions, and very little of her background knowledge appeared in her recalls. Her focus on explicit text information is consistent with her stated view of reading as a decoding process, as were many of her erroneous recalls.

Debbie

Involvement in Reading

Debbie said she learned to read in grade one when her teacher gave her cards with words on them to learn. She took these cards home where her grandparents and her brother helped her learn to read them by showing her "which one was which." She still has these cards and is using them to teach her younger sister at home, by having her read the words and giving her spelling tests on them.

She also said she remembered shared reading with her father when she was as young as two years old. She said she used to sit on her father's lap and read books aloud to him. He would help her with the words she did not know, and when they finished, she would read the book back to him by herself. She recalled reading books which she titled, "Where's My Little Dog Snowball," "Why is Red Special to You?" "How Are You My Darling Baby?" and "You Have To Go to School to Learn."

At home, Debbie said she currently reads with her grandparents, her mother, her siblings and with the nun who had taught Debbie's grandparents how to read when they were young. The nun visits the family frequently, and Debbie told me a great deal about her work with "kids on the street."

Sharing books has been extended into Debbie's classroom experience. She reads books with her friends there and she said that they help each other by reading books together. However, she said that she prefers to read by herself because its "nice and quiet."

Debbie mentioned the titles of several books that she reads at home and at school: "Alice in Wonderland," "West of the Moon," the Clifford books, and "The Littles." At home, she also reads children's magazines with her sister. She thought the best way to teach a child to read was to give the child a "nice easy book" and have the child read it three times.

During the interview, Debbie mentioned a variety of purposes for reading. Although she said that it is "fun" she also viewed it as functional in the context of everyday life, for example, she said that it is important to be able to read signs in stores. In addition, her grandparents, who are the best readers she knows, told her she should learn how to read and write so that she can be a teacher when she grows up. Finally, reading appeared to be an important social skill for Debbie, because she observed that if one could not read, one would be laughed at by others.

Debbie emphasized that she prefers reading Indian books to other kinds of books. She reads her grandparents' Indian books at home, but she also obtains them from the library and from the school. She gave examples of titles such as "Little Tommy's Going Hunting," "What's Thanksgiving?" "Baby's Gone With the Fox," and "I Know a Young Eagle." She also told parts of some of these stories. The following is a selection from a book she called "Glasstar":

> It's about this little boy. He makes a glass star out of glass. A little Indian boy. And he cut hisself of the glass. Then they put some sort of thing around it. His mom. And he had he lied down and he saw the star shine from the finger. Cause he had the star right beside his bed.

She also told me about an Indian story she had read in a book about twins who wonder who their father is. They search out the man named by their mother. He does not know whether they are his children, and gives them a series of challenges to meet before accepting them as his sons. After awhile the twins want to see their mother again but the father tells them that if they talk to anyone they will turn into something made of birch trees. They ask a stranger how their mother is, and are instantly transformed into trees. The mother rediscovers her two sons after three years have passed.

These Indian stories could not be traced to written texts. Two Cree teachers I consulted did not recognize them but they, as well as Mrs. Nelson, thought they sounded as if they could be from old basal readers that were perhaps in the home.

When Debbie was asked how I would know whether a book was an Indian one, she said there are, "Indians and stuff" in the illustrations. The girls in the pictures wear "skirt dresses with beads and stuff" and have braided hair, and she spontaneously added "I'm not sure what the boys look like." Her attention to the girls' costumes was likely related to her personal identification with them. She mentioned her own Indian dance costume in relation to a vocabulary question about hawks, saying that her grandmother decorates this costume with "hawk nails." She wears this costume when dancing at Powows. In another session, she mentioned that she wants to be a fashion designer when she grows up; she had attended a fashion show a few days earlier at the reserve, and she told me that her aunt, who had made a coat for Mrs. Nelson, was teaching her how to make beaded earrings with Indian designs. She then showed me some very beautiful earrings she had made.

Debbie was the only girl from the original sample who integrated discussion of "Indian things" with discussion of her reading during the interviews. She said that she loves listening to the Indian stories told at home. These are "happy stories, sad stories, scary stories." that are told by her uncle, grandfather, and friends of her parents. The best storyteller she knows is a friend of her mother and a singer who tells stories that "spook me out". Although she does not speak an Indian language, she said that she can understand it, and speaks "Half-Indian" to those who use it. I commented that Indian things seemed to be special for her and she was at first hesitant in her response:

> Sometimes like um I don't know. Just some-sometimes grandmas and grandpas say um like they're special. Like if you sleep with them. And nothing will bother you. Like you won't die or nothin. Like if you wear earrings, necklaces. They say that. But I don't know (laughs). I'm not sure if its true or not.

Reading Level

Debbie was able to meet the criteria for an instructional level of mid grade three in her silent reading and beginning grade three in her oral reading. Although she successfully addressed nine of the ten comprehension questions on the instructional level passage read orally, her reading rate was extremely slow, her word accuracy was only 88%, and she asked for help twice. In addition, she said the story was hard, commenting with a laugh, "I can't read." Yet, her recall of the story indicated that she had been processing much more information than would have been apparent in her oral reading.

Miscue Analysis

Debbie demonstrated awareness of both print and context cues in reading when she said that when she comes to a word she does not know she might sound it out or read to the end of the sentence and then go back to the word. As can be seen in Table A-3, analysis of the 36 uncorrected miscues made at beginning grade three and mid grade two levels revealed that Debbie used some knowledge of graphophonics and some of knowledge of language to identify words, but she did not score above 50% for high accuracy or high acceptability in these categories.

Debbie made heavier use of print cues than language cues when identifying unfamiliar words orally. Forty-seven percent of her miscues were highly graphically similar and 44% of the miscues were highly similar in sound to the text words. In contrast, 36% of Debbie's miscues were highly grammatically acceptable and only 33% were highly semantically acceptable in the sentences within which they occurred. However it is important to note that 22% of the miscues were syntactically and semantically acceptable in the part of the sentence in which they occurred. In these cases, Debbie was likely attempting to use language cues to predict words, but she was using only a part of the sentence, rather than the whole.

Seventy-eight percent of her miscues substantially altered the author's intended meaning, and this high score is consistent with the finding that Debbie was not highly successful in using semantic cues to identify unfamiliar words. In spite of this high rate of meaning change, however, Debbie was successful in reconstructing the meaning of these particular passages. The following is an example of how she was able to reconstruct the author's meaning in spite of having made a meaningless miscue. She had read "a jar smell of honey fell the air," instead of "a delicious smell of honey filled the air," and was asked to elaborate on her subsequent recall that, "A jar of honey broke."

> C: At the end of the story you said something about a jar of honey. Can you explain that to me?
> D: It fell down off a tree. And it made them forget all about being locked in the cabin.
> C: How do you think the jar of honey got in a tree?
> D: I don't know. Not exactly a jar. It was one of those things bees make. That's what I mean
> C: Do you know what its called?
> D: There's honey inside. No I don't know what its called.

From this exchange it can be inferred that in spite of her reading miscues, she knew a smell of honey had come from a beehive, which is what the author had intended.

Debbie corrected only 10% of her miscues. All of these miscues had substantially altered the author's intended meaning, but these were only four in total and this number is too small for a pattern in her corrections to be discerned. Additional monitoring may have been carried out covertly during the times that Debbie made extensive pauses during her reading.

Comprehension Tasks

Results on the comprehension tasks are summarized in Table A-3. Debbie's reading recalls were combined from two stories read orally and one story read silently at her instructional level, and these combined for a total of 35 recalls. Six percent of these involved the verbatim repetition of text information and 37% involved the paraphrase of text items. Thus, 43% of the recalls involved attention to and analysis of literal text details. In addition, she was able to correctly answer all five questions that required this kind of text information.

An additional 6% of the recalls were text embedded, and although Debbie was able to answer four of six synthesis questions at her instructional level or below, her recalls contained no superordinate statements. She said that she did not know what a main idea is, but she said that she reads the titles of stories before reading because the title, "tells what the book is."

At instructional level, 9% of Debbie's recalls were those in which text information was integrated with her background knowledge for the formation of inferences. She was able to integrate her background knowledge with text to answer five out of eight inference questions correctly for stories at instructional level, and she was successful at these at her frustrational level as well, answering three out of four correctly. Thus, although she had a low tendency to form inferences independently, Debbie was able to carry out this process when it was elicited by questions.

Debbie's background knowledge was adequate for the three vocabulary questions that were asked for stories at her instructional level, although this was one area where she started to have difficulty as the passages became more difficult. It was evident that she was trying to use context cues to infer the meanings of unfamiliar words at her frustrational level. For example, she thought that "coax" might mean "some sort of string or wire" because it was in a story in which a baby moose was trapped in a snare and, after freeing it, a boy tried to lure the moose home. Similarly, she thought that "persuaded" might mean "let them" because it occurred in a sentence in which three boys try to persuade their parents to let them go camping.

Seventeen percent of the recalls involved the use of background knowledge in ways that were not necessary to fill gaps left by the author. These mainly involved the insertion of minor details that were consistent with the story. For example, in a story about men setting traps for bears, she said that the men were hunters and they carried guns. And, in a story about a deer at a picnic table, she specified that it was a reindeer. Finally, in the story about a boy who fed a moose some of his lunch, Debbie assumed that this was a rabbit sandwich. The latter seemed to be related to the fact that the boy was mending a rabbit trap, and also to the liking Debbie later expressed for rabbit meat.

Twelve percent of Debbie's recalls were errors in detail and 8% were erroneous inferences. The majority of the former were details that Debbie had inserted from a previous story on the same topic, and the latter were relatively minor deviations from the text.

Synthesis

Debbie's reading comprehension was successful to the third grade level, and she indicated that she enjoyed the reading process. Although she made reference to functional and social purposes for reading, her responses to the interview questions and to the reading tasks indicated that the construction of stories was a significant aspect of reading for her. This was consistent with her involvement in oral storytelling. Debbie was also the only child in the sample who made spontaneous and explicit references to her Indian background. She expressed a preference for "Indian" books but she did not fully articulate what this meant.

Debbie thought she had learned how to read by learning words on flashcards sent home by her teacher. However, she also remembered reading children's books with her father at a young age, and she mentioned being involved in reading with her grandparents, parents and siblings. The role of her grandparents seemed to be particularly strong, since she mentioned them with respect to purposes for reading, being helped in her reading, and being provided with reading materials.

Debbie's oral word identification was less developed than her comprehension. She commented that oral reading was difficult, even at a level where she was successful in the comprehension tasks. To identify unfamiliar words, she relied more heavily on sound-symbol associations than on her knowledge of language, but she was not highly successful in using either of these sources of information in spite of partially acceptable attempts to use the latter.

Debbie made strong use of both text information and her background knowledge to comprehend text, and she tended to rely more heavily on the latter when the texts became difficult for her. She was able to integrate these two source of information, particulary in response to questions, even for stories at her frustrational level. Her one area on weakness in her reading comprehension was in the formation of superordinate statements, even though she demonstrated that she could synthesize information in response to questions.

Justin

Involvement in Reading

Justin said that he learned how to read "mostly from my mom" as well as from his teachers. His mother taught him how to read by giving him "little easy books" to read and then harder ones. He thought he had simply been told to read these books. He could not remember being read to when he was little, but he said that his mother currently reads with his baby brother every night, and he joins in when he is not too tired. Justin's mother currently listens to him read at home, and he commented that she wants him to read a chapter from his book every night.

Justin's account of learning to read at school paralleled that of learning to read at home, insofar as he thought that the teachers started the children off by having them read picture books and "then they got us reading books," and he felt that this was the best way to teach a child to read. His own teachers have "done lots," to help the children learn to read, but he could not specify what this was.

Justin viewed reading as an activity that one carries out independently from others. When he asks for help from his friend or from the teacher, he said that they tell him to "figure it out" on his own. In turn, this is what he tells children who ask for his assistance with reading. He felt that the best way to become a good reader is to practice one's reading, and this was how his own skill in reading had developed.

Justin said that reading is "fun" and he made a number of comments that linked his enjoyment of reading to communication with the author. For example, when we were talking about learning to read, he spontaneously said, "I enjoy reading because I enjoy finding out what books are about." In addition, when we talked about his writing, he said that he dislikes it, but he added, "I like authors because they write books and I like reading." Finally, when we were talking about his reading strategies he linked these to the construction of meaning from what he reads. For example, he said that he reads fast because he wants to know what a book says, but he stops and thinks about it if it does not make sense to him. He said, "I ask myself what the book is really about" when this happens.

According to Justin, if a boy could not read, he could look at the pictures of a book, but "wouldn't know what it was about," and would be unable to tell his friends about it. Knowing what the book was about was of the utmost importance to Justin, and his concern for meaning was evident in the way he talked about material he had read on his own. In the following example, Justin was expressing a great deal of frustration at his inability to understand a part of a novel which he called "The Getalong Gang and the Crybaby:"

> I didn't get it because um why they started to cry. They got onions. Like- the Getalong Gang they were playing a trick on them- that girl- to make her learn a lesson not to be such a crybaby. And then I don't know why they just got those onions. A beaver told them what was happening. He got mad at them. And

> then they went to the grocery store to buy some onions but I don't know why they started to be cry. I don't know why.

When questioned, he made it clear that he knew the relationship between onions and crying, and that his difficulty had more to do with the motivation of the characters.

In another instance, he talked about reading to satisfy his curiosity about sasquatches. Justin had his own questions about them and was reading a book called Bigfoot to learn about them, but he puzzled over whether or not they could be real. With his father's involvement, Justin's interest in sasquatches was extended to the location of information about Vikings. This anecdote was told when he was telling me the strategies he uses to identify unfamiliar words:

> J: I'd find out on my own. Probably go in some dictionaries at home. I do that sometimes. Cause I wanted to find out about sasquatches. That book. And um my dad told me there was no such thing sasquatches but there was such thing Vikings. Cause I looked and I looked in one of the dictionaries.
> C: Where was the dictionary? At home or at school?
> J: At home. And we found Viking.
> C: Did your dad help you look for it?
> J: He told me to try and find the book. But there was no book on V so we got dictionary from A- I think- no it was A-Z. No K to Z so we got that one and it was in there.

In addition to revealing Justin's own attitude toward reading, the dictionary incident also reveals the role played by Justin's father in his reading. There were other instances where Justin mentioned his father in relation to his reading as well. For example, he said that sometimes he tries reading things "like percent" in his father's books. He also said that he had visited the library with his father because his father "has to read about" a new business he is planning to start.

Reading Level

When reading orally, Justin's instructional level was sixth grade, and he was able to achieve 96% word accuracy at this level, even though his oral reading speed was slow. Because he easily addressed all ten questions for the sixth grade passage, it is likely that his instructional level was actually higher than sixth grade, but passages at a higher level were not available in the test that was used in the study. Justin's silent instructional level, at fifth grade, was one year lower than his performance for oral reading.

Miscue Analysis

Uncorrected miscues for analysis were taken from two stories read aloud by Justin at the fifth and sixth grade levels, and there were 22 of these in all. A summary of the miscue analysis is provided in Table A-4. Justin said that when he comes to a word he does not know, he just "figures it out," and analysis of the miscues revealed that graphophonic cues played a relatively minor role in this process. Only 32% of his uncorrected miscues had retained at least half of the letters of the original words, and only 36% of the miscues retained at least half of the original sounds. 59% of his miscues had no graphic similarity and no sound similarity, with the majority of these being insertions and omissions.

In contrast, 95% of his uncorrected miscues were highly grammatically acceptable and 91% of them were highly semantically acceptable in their contexts. This represented a very strong use of language cues to identify words. For example, he read, "She saw the snow wiping against the window" instead of "She saw the snow whipping across the window." He also read, "...she had been left alone" for "...she had been left all alone." The following segment is an example of how Justin could use intonation to transform the sentence structure of the text while oral reading, and yet convey the author's message:

> Text: "If I could just get to the phone, I could call for help," she thought. But before she made a move, the back door opened!
>
> J: "If I could just go to the phone, I could call for help." She thought before she made a move. The back door opened!

His attention to meaning was evident in that only 9% of

Justin's uncorrected miscues substantially altered the meaning of what he read. When he noticed that what he read did not make sense, he would pause and then change it. For example, he self-corrected "Alexis adjusted to her reading lamp" to "Alexis adjusted her reading lamp," and "She laughed self-cautiously" to "She laughed self-consciously." Thirty-six percent of his miscues were corrected, and of these, 86% had substantially altered the meaning of the text. This indicates that Justin was monitoring his word identification primarily on the basis of meaning. In contrast, 57% of his corrected miscues had high phonic similarity and 43% of his miscues had high graphic similarity. Because these scores were higher than those obtained for the uncorrected miscues, it can be inferred that graphophonic accuracy was not a major consideration for Justin when he monitored his reading.

Comprehension Tasks

Justin had a total of 65 recall statements for two stories read orally and one story read silently at the fifth and sixth grade levels. A summary of their analysis is provided in Table A-4. Thirty-five percent of these were paraphrases of text information and 8% consisted of verbatim recall. Thus he was able to attend to and analyze text information. He was also able to carry out these processes when answering questions, as three out of four of his responses to this type of question were correct.

Twelve percent of Justin's independent recalls were text embedded, and he was able to answer all four synthesis questions correctly. The following is an example of synthesis, where Justin restructured text information in a unique way:

> J: (Oral reading) But shadows in the corners of the room seemed to expand into unfamiliar shapes.
>
> J: (Retelling) Then out of the corner of her eye she saw shadows.

In another retelling, he restructured a story so that the events could be told in chronological order. Although Justin had a strength in synthesis, only one of his 65 recalls was a superordinate statement. He did not tend to summarize ideas in the stories, but he was able to define the main idea as being what a story is about, and he knew that the main idea can be learned from the title, from the back of the book, and from its illustrations. He also said that he enters the main idea of what he has read into his daily reading record in the classroom.

Justin made active use of his background knowledge to complement text information, with 20% of his recalls being inferential statements, and he correctly answered both of the inferential questions that were asked of him. He also used his background knowledge to embellish what he had read, as 15% of his recalls were elaborations. He prefaced many of these statements with "I think" or "probably" indicating his awareness of text constraints, and there were two instances where he corrected himself after seeming to become personally involved in the stories:

> His friend Yan said he smells food. We tossed our backpacks- they tossed their backpacks to the grizzly bear.

and,

> The Oiler- the home team scored a goal.

He also used his background to create a humorous moral to a story, but when he did this, he made it clear that he was joking. This occurred when he was asked a question about a story in which a boat tipped over when a character named Bob stood up in it:

> J: They almost / drownded.
> C: What did Mr. Wilson learn from the trip?
> J: (Smiling) Probably never to go fishing with Bob again.
> C: (laughs) Anything else you think they might've learned?
> J: That its dangerous to stand up. They should have remembered to bring their life jackets.

Justin answered both of the vocabulary questions that were asked at his instructional levels. In addition, he was able to use context cues to identify the meanings of unfamiliar words when he was asked vocabulary questions for stories that had been frustrational for him. In the following example, he was questioned about a story in which he had read "remindings" for "remains":

> C: How did he try to outsmart it (a

> moose)?
> J: By feeding him the last reminds of his lunch.
> C: When you say "reminds," what does that mean?
> J: It means the last bits of his lunch.

In another instance, Justin read a story about a boy who plows through the snow to get medical help for his little sister. When asked about the meaning of the word "plowed", he said that he hadn't seen the word before but he inferred its meaning from the context:

> I think it probably means walked on, cause it says he plowed on. Plowed means he walked in the snow.

In addition, it also appeared that Justin made use of structural analysis to understand word meanings; when he read a story that was set in a remote area of Banff National Park, and was asked for the meaning of "remote", he replied,

> J: I think/ heard the word/ I've heard of a moat/ don't know
> C: Do you want to take a guess at it?
> J: I think it means/ heard the word/ this is hard
> C: It is hard.
> J: I'd say there's no water or anything there.

Eight percent of Justin's recalls were erroneous and the majority of these were minor errors in detail.

Synthesis

Justin was a highly successful reader who enjoyed reading and was involved in it both at home and at school. When talking about his personal reading, he mentioned fictional materials as well as informational material and it was clear that in both, his primary purpose was to reconstruct what the author was saying; his concern for meaning was evident both in comments made about his reading experiences and in his approach to the test passages.

For Justin, reading at home was at least as important as the reading that was done in school, and he thought he had mainly learned how to read at home. Although he viewed reading as an independent activity, he mentioned a variety of social interactions in relation to his reading. These included reading with his mother and little brother, telling what one has read to one's friends, and locating information in books with his father.

He made strong use of his knowledge of language to predict and to monitor in his word identification, and relied on this knowledge much more heavily than his knowledge of sound-symbol associations. The use of meaning to predict and monitor his miscues was consistent with his many statements in which he referred to reading as a process in which one finds out what an author is saying.

When recalling information independently, he was able to attend to, analyze, and synthesize text information to the sixth grade level, although he rarely made superordinate statements when recalling information independently.

He also made strong use of his background knowledge both to form inferences and to elaborate on what he had read. His perception of text constraints was evident in some of the statements he made to qualify these elaborations.

Comparisons of Findings Across the Children

In the preceding section of this chapter, the findings were described with respect to each child's background in reading, level of reading, miscue analysis and comprehension tasks. In the following section, the findings for the four children will be compared, and similarities and differences among the children with respect to each of the four aspects of reading will be described.

Involvement in Reading

None of the four children could state specifically how they had learned to read, but two of the children thought they had learned to read at home rather than at school, and the other two mentioned intervention at home by family members had helped them meet the reading expectations of their grade one classrooms.

All four children mentioned involvement in reading with family members at home. Although parents were mentioned in relation to reading experiences, grandparents seemed to be particularly important for two of the children in the study. Furthermore, all four children also mentioned being involved with siblings during reading. The nature of social interactions surrounding texts seemed to be different for each of the children, but together, they noted a diverse range of activities including reading to others, being read to, identifying words, visiting the library, locating information in books, talking about what one has read, teaching younger children how to read, and participating in oral storytelling.

When the children's explicit and implicit purposes for reading were compiled, a variety were evident. All four children mentioned that reading was fun, and three of the children cited practical uses for reading skills, such as reading signs or locating information in books. Two of the girls mentioned becoming a teacher as an outcome of being able to read.

Social expectations were also important to the four children. Mary expressed concern about her performance in comparison to others, Karen said that fear of others' reactions had inhibited her reading in grade one, Debbie noted that if one could not read, one would be laughed at by others, and Justin observed that if you did not know how to read, you would be unable to tell your friends about the book.

However, it was also apparent that the children varied with respect to the aspects of reading that seemed to be particularly important for them. Justin made extensive references to the understanding of the author's message when one reads, and he linked this process to informational material as well as to stories. Karen and Debbie both linked reading to the process of storytelling, which may have been related to their involvement in storytelling either alone or with others. Finally, Mary's stated view of reading contrasted with that of the other three children in that the skills involved in identifying the words in the story were more important than the meaning that could be constructed by the reader.

Reading Levels

All four children were able to orally read test stories at or above the level of reading expected for their grade placement. With the exception of Mary, however, each of the children had difficulty reading at least one story that was below his or her oral instructional level. Reasons for this difficulty may be the passage topic and structure, passage order, mood of the child at the time of administration, and whether the story was read orally or silently.

In addition, discrepancies between abilities in word identification and comprehension were found for two of the children. Mary was able to sustain a high rate of word accuracy even when her comprehension of text broke down, but for Debbie this pattern was reversed, as she was able to achieve adequate comprehension for a story even after her word identification fell below that normally associated with an instructional level.

Word Identification

As can be seen in Table A-5, the four children varied with respect to their use of graphophonic and language cues when they identified words in stories. Justin, who was the most successful reader in the group, made the lowest use of graphic cues and the strongest use of language cues in predicting and monitoring words. In addition, his rate of meaning change in his oral reading was much lower than that of the other children.

Mary's word identification pattern was similar to Justin's to the extent that she made stronger use of language cues than she made of graphophonic cues to predict words, although she did rely on the latter more for monitoring. There was a strong discrepancy between her use of syntax and her use of semantics, with the latter being much lower, and she had a higher rate of meaning change than Justin had. She had a high number of partials for both syntactic and semantic acceptability, and these partials represent attempts to use language cues that were only partially successful.

The miscue patterns of Karen and Debbie differed from those of Justin and Mary, insofar as they made stronger use of graphophonic cues to identify unfamiliar words. They had similar scores for high grammatical acceptability, with rates that were lower than those achieved by the previous two children, but they varied in their use of semantic cues; Karen's use of semantic cues was much lower than Debbie's and was, in fact, the lowest of all four children. Another difference between these two girls was that Debbie's oral reading was very laboured, and she had a low accuracy rate with few self-corrections.

Comprehension

Table A-6 summarizes the results on comprehension tasks for all four children. They were similar in reading comprehension insofar as the majority of their recalls referred to text information, and for all four children the tendency was much stronger to paraphrase text information than it was to recall it verbatim.

The children varied with respect to the percentage of unaided recalls in the text embedded category, with Mary's rate of synthesis being much stronger than that of the other children, and it remained strong even at her frustrational level. Although the rates for text embedded recalls were low for the other three children, they demonstrated that they could draw explicit connections between text details when they were asked questions that required this process. In addition, all four children demonstrated that they could synthesize information by the way they used context cues to answer vocabulary questions.

With respect to synthesizing information to form main idea statements, there were very few recalls in this category for any of the four children, and it is possible that this was due to the lack of questions that required the formation of summary statements.

There was a great deal of variation among the four children with respect to the use of background knowledge to construct meaning from texts. Of the four children, Justin exhibited the strongest tendency to use his background knowledge to fill in gaps left by the author. He also often embellished the text and there were times when he seemed to become personally involved in the stories. Debbie and Karen both had a tendency to embellish the text as well, but they did so in different ways. Debbie's embellishments tended to be additions of factual details whereas Karen's embellishments were rich and imaginative. Debbie did not tend to use her background knowledge to form inference statements independently, but she carried out this process in response to questions, even when stories were at her frustrational level. In contrast, Karen had difficulty using her background knowledge to fill gaps left by the author, even when she was asked questions to prompt this process.

For Mary, in contrast to the other three children, very little of her background knowledge was made explicit in the comprehension tasks. She had difficulty answering vocabulary questions at her reading level, and she had virtually no embellishments, and had few inferences in her recalls. Although her poor performance on the vocabulary questions suggests a possible difficulty with semantics, it is important to note that Mary's lack of background knowledge in her text reconstruction is also highly consistent with her apparent view of reading as a decoding process.

With respect to error formation in recalls, Karen was the only one of the four children whose recalls were all appropriate for the texts read, even though she was the one who used her imagination the most when constructing meaning from what she read. Justin and Debbie's erroneous responses were both below 10%, and Mary had the highest rate of errors in her unaided recalls. This is consistent with her focus on reading as a decoding process.

Chapter 5

SUMMARY, DISCUSSION, AND IMPLICATIONS

The purpose of this chapter is to provide a summary of the study, to discuss the major findings, to identify implications of the study for teaching, and to make recommendations for further research.

Summary

The purpose of the study was to describe the use of knowledge and stated views brought to reading by selected English-speaking grade three Cree children. Cree children from a grade three classroom were administered an informal reading inventory (Alberta Education, 1986) and were interviewed about their involvement in reading. Data was analyzed for the four children who had been able to read the test passages to at least the third grade level, and one child whose instructional level was upper grade two.

A modified form of miscue analysis (Goodman, Y.M. & Burke, 1985) was used to identify the children's use of graphophonic, syntactic, and semantic cues in their oral reading. Analysis of unaided recalls (Fagan, cited in Malicky, 1987) was used to identify the children's use of text information and prior knowledge as they orally reconstructed what they had read. In addition, identification of the children's use of text information and prior knowledge was made through the children's responses to comprehension questions.

A descriptive profile was made for each child with respect to his or her use of knowledge in reading, and his or her views on reading. Then, comparisons were made among the four children.

Discussion of the Main Findings

Miscue analysis revealed that none of the children made strong use of graphophonic cues to identify unfamiliar words in context, and Justin, who was the most highly developed reader in the group, made the least use of these cues. Thus, for these children construction of the author's intended meaning did not rely on extensive use of sound-symbol associations during reading. With respect to the use of language cues, there was a great deal of variation among the children, with those children who made the strongest use of these cues having the lowest rate of meaning change in their oral reading. The ability to infer the meaning of unfamiliar words seemed to account for the ability of three of the children to reconstruct the author's meaning in spite of high rates of meaning change in the miscues, but comments made by the child with a low word accuracy rate clearly indicated that this process was difficult for her.

With respect to text information and prior knowledge in the reconstruction of the author's meaning, it was found that the children were generally similar in their tendency to focus on text information, and in their tendency to paraphrase this information more often than to repeat it verbatim. Use of background knowledge and knowledge of language was thus evident even in text-based recalls, as the children re-worked text information with their own language.

All four children were able to synthesize text information, as evidenced by their use of context cues to identify the meanings of unfamiliar words, and their ability to connect text units in unaided recalls and responses to questions. However, there were individual differences in the children's tendency to do so. There were very few instances of the children forming superordinate statements, but this may have been due to the nature of the research tasks, since the oral instructions for the retelling could have been interpreted by the children as a request for detailed information, and the test questions did not require summary statements in order to be answered correctly.

There was a great deal of variation in how the children used prior knowledge to fill in gaps left by the author, and to embellish the text. Mary focused the most strongly on text-based information, and little of her personal knowledge appeared in her recalls. In contrast, Karen added very rich imaginative details to what she read. Neither of these two girls made much use of their background knowledge to fill in gaps left by the author, even when they were asked questions that required this process.

The strongest tendency to form inferences was observed in Justin, who had obtained the highest reading level in the group. He also embellished the text, as did Debbie, who was successful in forming inferences when these were elicited by questions.

The interview data suggested that all four children had very positive attitudes toward reading, and the importance of reading activities in the home could be seen in three of the children's stated views that involvement by family members had been instrumental in their learning to read. In addition, social expectations that one should learn how to read were evident in all four children's discussions.

A variety of reading activities at home were reported by the children, and these often involved grandparents and siblings, as well as parents. Activities involved reading to others and being read to, locating information in books, and teaching younger siblings how to read. The children generally reported reading books that are common for children in that age group, but one child expressed a strong preference for reading material about Indian topics, and another child attributed a story to a book which did not appear to exist.

When data from the reading tasks was synthesized with data from the interviews it was found that the children tended to focus on different aspects of reading in the research context. Justin had the most highly developed sense of reading as communication with an author in the way he talked about reading, and he had the most highly developed reading strategies. Karen and Debbie both associated reading with oral storytelling, but for Karen this was related more to imagination and humour, while Debbie made direct connections between reading and involvement in Indian activities. Both girls had a strong tendency to elaborate on what they read. Mary's view of reading contrasted with that of the other children insofar as she showed very little concern for meaning or enjoyment when she talked about her personal reading, and little of her own prior knowledge was evident in her recalls. It is important to note, however, that use of her background knowledge was implicit in her ability to paraphrase and synthesize text information.

Overall, the findings of the study are consistent with the view of reading as a complex interactive process in which the reader's prior knowledge and stance toward reading shape how he or she will construct meaning from print. In the reading of the four children in the study it was evident that as, Freire and Macedo (1989) suggest,

> Reading does not consist merely of decoding the written word or language; rather it is preceded by and intertwined with knowledge of the world. Language

> and reality are dynamically interconnected. (p . 29).

This view is not entirely new, as Bartlett (1932) concluded from his study of adult readers,

> An organism has somehow to acquire the capacity to turn around upon its own schemata and construct them afresh...It is where and why consciousness comes in. (p. 206).

Fifty-eight years later, his question "I wish I knew how it was done" (p. 206) has not been fully answered, and there is as yet no theory of reading that can explain this process.

In discussing these findings in the broader context of Native education, it is important to consider Assheton-Smith's quotation of an Indian who once told her, "Tell them nobody ever expected anything from us" (1980; p. 23). She notes that the expectation of "non-competence" (p. 23) can be just as detrimental to the child as poor treatment on the basis of his or her background.

At the age of eight, the four children in this study had a wealth of knowledge that they could use in extremely complex ways. There was no indication of any inherent problems or deficiencies in their reasoning, as one might have expected on the basis of some of the literature about Indians. Rather, there were many indications that the children brought highly developed and purposeful strategies to their reading, and that the children were capable of directing these strategies with an intelligent assessment of the situation they were in.

Similarly, there was no indication that the home backgrounds of these children, as described by them, were inadequate to support their literacy. In fact, the children described being involved in a variety of reading activities in the home, and the types of activities they cited, [such as being read to, reading to others, locating information in books] are consistent with contemporary views of how literacy should be supported in the home. It is important to also note that all four children thought that home activities had been instrumental in their learning to read.

As was discussed in Chapter Two, some literature on Native children and their reading suggests that such children may have a culturally distinct way of reading. This study found, however, that the four children's reading could not be characterized by a single profile, even though the children shared a common community and classroom. In this study, a single pattern could not be identified with respect to how these four children used text information and their prior knowledge to construct meaning. Rather, Karen, Mary, Debbie and Justin demonstrated that multiple processes are available to readers, and each reader combines and integrates these processes in accordance with his or her strengths and perception of what is important in the context.

Diversities in their reading strategies and their responses in the interviews likely reflect the variety of literacy events the children have been engaged in, as well as reflecting each child's capacity to purposefully construct experience in an individual way. This interpretation is not incompatible with the findings of Heath (1980) and Scollon and Scollon (1981) that cultures do develop certain stances toward literacy. Rather, it suggests that within these cultures a great deal of variation is possible, and that the child plays an active role in developing his or her reading.

Karen, Mary, Debbie and Justin gave no indication that they associated reading with a broader context of intercultural conflict, and there are a number of possible reasons for this. First, the children might not have perceived such conflicts. Second, they may have been aware of such conflicts but did not think it appropriate to raise them in the research context. Third, the ability to read might be perceived as a positive cultural, economic and political tool, rather than as an instrument of oppression in their social environments. This study could not address these possible reasons, but the active involvement of family members in the children's reading, the children's enjoyment of reading, and their perception that reading was related to the respect one gains from others, all indicate that reading was considered to be a positive and natural activity for one to engage in for pleasure as well as for learning.

In general, the children's reading purposes seemed to be related to their inherent drive to grow and to make sense of their world. They knew that reading could be used to locate information, to learn about one's culture, to demonstrate one's competence to others, to create one's own world, and to generate fun and laughter.

That four children in the one classroom and community could demonstrate such individual, and successful, approaches to reading raises the question of how many additional approaches and perspectives there might be. Teachers and researchers need to question any view of reading that does not allow for diversity and self-direction on the part of the reader. Teachers and researchers also need to question the assumptions behind labels such as "Native" and they need to question whether and how these assumptions relate to what these children can do. We need to turn our attention away from defining people and turn our efforts toward ways that we can develop our appreciation and respect for what children are capable of, and to recognize the divergent paths they might follow. The following two sections of this chapter discuss some directions we might take to help these children along their ways.

Implications for Teaching

Although this study dealt specifically with Cree children reading in English, it is important to consider the following implications in the broader context of Native education, especially in the context of policy documents representing Indian people's views, as outlined by the National Indian Brotherhood (1972) and Assembly of First Nations (1988). Both these documents have stressed the need for local control, for more resources to be allocated to Indian schools, for more highly qualified teachers with a good understanding of the children's cultures, for local development of curricula, for identification of and development of instruction for the gifted as well as for children with remedial needs, and for increased community involvement in the school

The findings of this study indicate that Native children's needs in reading instruction must be assessed on a local basis, because the literature review found that there is currently no basis to assume that Native children share a common set of instructional needs. In this study in one classroom there was a great deal of individual variation among four children who read at or above grade level. The Alberta Diagnostic Reading Program (1986) is one tool for reading assessment, but educators can also develop their own reading inventories based on the types of reading that the children do in the classroom and community, and with observations of the child's reading in the classroom included as an ongoing aspect of the assessment process.

Diagnostic assessments should also include consideration of the child's view of reading, since this study found that the child's view of reading was generally congruent with his or her comprehension strategies, and the child's view of what is appropriate in reading may be a factor in the child's selection and development of these strategies. In the classroom, this should include consideration of the child's behaviour, as well as answers to questions. For example, the types of books the child chooses to read, and how a child chooses to share a book with the class may say something about how he or she feels about reading.

The Alberta Diagnostic Reading Program (1986) includes checklists that a teacher can use as a guide when observing a child's reading in the classroom, and alternate checklists and guides are available in Searfross & Readence (1989) as well as in contemporary basal reading series. In addition, a service document recently developed by the Calgary Separate School Board (1989) contains many valuable suggestions for teachers observing children's language in the classroom. These include a number of guides for recording observations about the child's purposes for and attitudes toward reading, as well as for identifying the child's strategies in reading. Sample guides from this document can be found in Appendix B.

These kinds of resources, as well as training in diagnostic reading should be available to teachers in Native communities.

In the development of a reading program there needs to be consideration of the knowledge that the child has acquired in the home and community, and the curiosity that the child has about the world. Texts should be selected and activities designed to draw on what the children know, and to extend that knowledge. Teachers should never make prior assumptions about a child's knowledge and attitudes on the basis of the child's ethnicity. Among the four children involved in this study it was found that their interests covered a diverse range of topics, from sasquatches to rhymes to Indian culture. Information about the children's experiences can be gained through listening to the children and interacting with their families and community, which is particularly important when the teachers come from outside of the community.

Many teachers of Native children believe that parental support for the child's literacy is important, but there is insufficient recognition of how strong this support may be, nor has there been sufficient recognition of how teachers might improve their reading instruction by following the lead established by adults in the home, as has been found in ethnographic research of literacy in the homes and schools of non-Native children (Juliebö, 1985). In addition, there needs to be greater recognition, and use of, contributions to the child's literacy made by other family members such as grandparents and siblings. Teachers need to be able to communicate with these people and to work with them in developing the child's literacy.

Overall, an instructional program for the children involved in this study would need to be one in which multiple strategies for reading could be developed. The need for flexibility in such a program is particularly striking in consideration of the fact that only two of the fifteen Cree children in Mrs. Nelson's class were actually reading at the grade three level, as assessed by the informal reading inventory. The individualized reading program as outlined by Holdaway (1980) is one possible model for such a reading program, but it would be important for the adult-child ratio in the classroom to be high enough to allow for sufficient monitoring of the children's reading, and individualized instruction where necessary.

It would also be important to develop a good classroom library with diverse kinds of narrative, informational, and poetic reading materials available at a variety of levels. Any instructional approach that requires the children to read the same texts and to participate in pre-established activities would not be productive for the children in this class. In addition to including high quality literature and magazines such as Owl and Ranger Rick, the classroom library could include locally developed material about the children's families, school, and community. Developing this material would be an appropriate project both for the children in the school and for adults within the community.

It is important to emphasize that individualizing instruction in reading does not require that each child be working on an isolated program (Temple & Gillet, 1989). The social aspects of reading were important for the children involved in this study, and it would be important for them to share their reading experiences in the classroom. There are many shared activities that can help children with diverse needs in reading. For example, responding to what was read through drama and storytelling would build on the strengths in elaboration that Debbie and Karen brought to their reading, and would enhance their oral language development, but would also help Mary to extend her perception of reading as a process in which her imagination and knowledge can be brought to play.

However, the children should also be allowed to read alone and for purposes which they develop. This would allow Justin to pursue his own interests in and through reading, and would allow Debbie the extended practice with reading easy material that she needs to be able to identify words more automatically.

Recommendations for Further Research

As was discussed in Chapter One, there has been very little research into the reading of native children. There is a strong need for this research so that instructional programs can be developed in consideration of the children's strengths and weaknesses, so that children with remedial reading needs can be identified, and so that we can broaden our theoretical understanding of the nature of reading in its various contexts. The following are some suggestions for future research:

1. If additional descriptive studies could be carried out with more Native children, then comparing the findings could provide some insight into the scope of variation related to individual differences among the children, familial and community relationships, and types of school programs.
2. In addition, qualitative data obtained from diagnostic reading research could be used to gain insight into differences in the strategies used by successful and less successful readers at various grade levels, so that instructional programs for the latter can be modified accordingly. Studies carried out with less successful readers should include an assessment of the child's language and listening comprehension. These would help determine whether reading difficulties stem from difficulties with the reading process itself, or with the background knowledge that is used

in the process.

3. This study examined the reading of four children in one particular context and at one point in the school year. There should be additional investigation into ways in which the children's reading strategies might change according to the context, and according to the type of text that is read. This should be carried out in natural settings, with careful observations of context cues, including non-verbal behaviour, that are used by the child to construct meaning from print.

4. In addition, longitudinal studies of Native children's reading would provide important data about how the children's reading grows and changes over time. If these could include detailed descriptions of the child's home and school literacy experiences, we could gain further insight into how literacy is learned.

5. Because the belief is widely held that Native children's cognitive style is related to their reading, the relationship between cognitive style and orientation to reading needs further investigation, particularly with qualitative studies of how meaning is constructed during literacy events in natural situations. Future studies should explore the scope of individual diversity and uniqueness, and should consider the nature of the context in the development of meaning.

6. The nature of Native children's literacy experiences at home and in the community need further investigation. The popular assumption is often that Native parents are

illiterate and disinterested in their children's reading, but this study found that four children reported being actively involved in reading in their everyday lives outside of the school. There is a need for qualitative research to provide greater insight into the processes involved in Native children learning to read at home, and to observe how this might compare with the social processes involved in reading at school. Such research should not be limited to the study of parent-child literacy events, but should also examine the nature of literacy in the entire familial and community context. In particular, children's literacy in sibling interaction and peer-group interactions warrants further investigation.

7. There is a need for research to investigate what reading means in the context of everyday life for the adults as well as for children in Native communities, and the relationship of literacy to their personal, economic, and political goals.

8. It would also be very useful if the children's social uses of language could be explored and considered with respect to how they approach reading. In Mary's case for example, it would be interesting to know if the same competitiveness and impulsiveness she brought to the research context was related to a personal approach to language use in other contexts. Similarly, Karen's and Debbie's storytelling indicate that Cree children's use of story to construct and convey meaning needs to be explored.

REFERENCES

Alberta Education. (1986). Diagnostic reading program. Edmonton: Alberta Education, Student Evaluation Branch.

Alberta Education. (1987). Native education in Alberta: Native people's views on Native education. Alberta: Alberta Education.

Anderson, R. C. & Pearson, P.D. (1984). A Schema-theoretic view of basic processes in reading comprehension. In P.D. Pearson (Ed.), Handbook of reading research (pp.255-292). New York: Longman.

Ashton-Warner, S. (1962). Teacher. New York: Simon & Schuster.

Assheton-Smith, M. (1980). The child called Indian: Stigma, stereotype or cultural identity. Indian Ed: Canadian Journal of Native Education, 7(3), 13-22.

Au, K. & Jordan, C. (1981). Teaching reading to Hawaiian children: Finding a culturally-appropriate solution. In H. Trueba, G. Guthrie, and K. Au (Eds.), Culture and the bilingual classroom: Studies in classroom ethnography (pp. 139-152). Rowley: Newbury House Publisher's Inc.

Au, K.H. & Mason, J.M. (1981). Social organizational factors in learning to read: The balance of rights hypothesis. Reading Research Quarterly, 17(1), 115-152.

Bartlett, F.C. (1932). Remembering. A study in experimental and social psychology. Cambridge: University Press.

Bernstein, B. (1970). Education cannot compensate for society. New Society., 26, 344-347

Boloz, S.A. & Jeness, D. (1984). The sun is shining in my eyes: The Navajo child enters kindergarten expecting to read and write and he can. Journal of American Indian Education, 22(3), 25-30.

Borg, W. & Gall, M.D. (1989). Educational research: An introduction (5th ed.). White Plains, N.Y.: Longman, Inc.

Bloom, D. & Green, J. (1984). Directions in the sociolinguistic study of reading. In P.D. Pearson (Ed.), Handbook of reading research (pp.395-422). New York: Longman.

Calgary Separate School Board. (1989). Language Arts evaluation: Options for consideration. Calgary: Calgary Separate School Board, Language Arts Department.

Chambers, C. (1988). A matter of choice: Individual differences in Native Indian student participation during reading lessons. Reading Canada-Lecture, 6(1), 54-61.

Chrisjohn R.D. & Peters, M. (1989). The right-brained Indian: Fact or fiction? Journal of American Indian Education Special Issue, 77-83.

Clay, M. (1985). The early detection of reading difficulties. (3rd ed.) Portsmouth, N.H.: Heinemann.

Common, R.W. & Frost, L.G. (1988). The implications of mismeasurement of Native students' intelligence through the use of standardized intelligence tests. Canadian Journal of Native Education, 15(1), 18-30.

Cronin, M. (1980). The relationship of story grammar to recall of grade six Cree students. Unpublished master's thesis. University of Alberta, Edmonton.

Decore, A.M., Carney, R. & Urion, C. (1981). Native people in the curriculum. Alberta: Alberta Education.

Downing, J., Ollila, L. & Oliver, P. (1975). Cultural differences in children's concepts of reading and writing. British Journal of Educational Psychology, (45), 312-316.

Erickson, F. (1988). School, literacy, reasoning and civility: An anthropologist's perspective. In E.R. Kintgen, B.M. Kroll & M. Rose (Eds.), Perspectives on Literacy (pp. 205-206). Carbondale & Edwardsville: Southern Illinois Press.

Erickson, F. & Mohatt, G. (1982). Cultural organization of participation of two classrooms of Indian students. In G.D. Spindler (Ed.), Doing the ethnography of schooling (pp. 132-174). New York: Holt, Rinehart and Winston.

Fagan, W.T. (1987). The learning and teaching of reading: An interactive processes model. Edmonton: Eolas Publishing Company.

Fisher, A.D. (1976). The dialectic of Indian life in Canada. Canadian Review of Sociology and Anthropology, 13(4), 458-464.

Fisher, A.D. (1980). Tacit racism and education. Indian Ed: Canadian Journal of Native Education, 17(3), 2-12.

Freire, P. & Macedo, D. (1987). Literacy: Reading the word and the world. Massachusetts: Bergin & Garvey Publishers.

Gillet, J. W. & Temple, C. (1986). Understanding reading problems: Assessment and instruction (2nd ed.). Toronto: Little Brown and Company.

Goodman, K. (1986). What's whole in whole language? Richmond-Hill, Ontario: Scholastic-Tab.

Goodman, Y.M. (1986). Children coming to know literacy. In W.H. Teale and E. Sulzby (Eds.) Emergent literacy: Writing and reading (pp. 1-14). Norwood, New Jersey: Ablex Publishing Corporation.

Goodman, Y.M. & Altwerger, B. (1981). Print awareness in preschool children: A working paper. A study in the development of literacy in preschool children. Occasional Paper No. 4, Program in Language and Literacy, University of Arizona, Tucson.

Goodman, Y.M., & Burke, C.L. (1972). Reading miscue inventory: Procedure for diagnosis and evaluation. New York: MacMillan Publishing Company.

Goodman, Y.M., Watson, D.J. & Burke, C.L. (1985). Reading miscue inventory: Alternative procedures. New York: Richard C. Owen Publishers Inc.

Gould, S.J. The Mismeasure of Man. New York: W.W. Norton & Company.

Griese, A. (1974). Special problems of reading comprehension in the education of Eskimo and Indian pupils. In F. Berry (Ed.), Northern cross-cultural education symposium (pp. 21-34). Fairbanks: Center for Northern Educational Research.

Guthrie, L. F. & Hall, S. W. (1984). Ethnographic approaches to reading research. In P.D. Pearson (Ed.). Handbook of Reading research, (pp.91-110). New York: Longman.

Harris, A.J. & Sipay, E.R. (1985). How to increase reading ability: A guide to developmental and remedial methods.

New York: Longman.

Harste, J. C., Woodward, V.A. & Burke, C.L. (1984). *Language stories and literacy lessons*. Portsmouth: Heinemann Educational Books.

Heath, S.B. (1983). *Ways with words: Language, life, and work in communities and classrooms*. Cambridge: Cambridge University Press.

Holdaway, D. (1981). *Independence in reading: A handbook on individualized procedures*. Gosford, N.S.W.: Ashton Scholastic.

Johnston, P. (1983). *Reading comprehension assessment: A cognitive basis*. Newark, Delaware: International Reading Association.

Johnston, P. (1984). Assessment in reading. In P. D. Pearson (Ed.), *Handbook of reading research* (pp. 147-182). New York: Longman.

Juliebö, M. (1985). *The literacy world of five young children*. Unpublished doctoral Dissertation, University of Alberta, Edmonton.

Kaulbeck, B. (1984). Styles of learning among Native children: A review of the research. *Canadian Journal of Native Education*, *11*(3), 27-37.

Kleinfeld, J. (1974). Preparing teachers for the cross-cultural classroom. In F. Berry (Ed),*Northern cross-cultural symposium* (pp. 73-78). Fairbanks: University of Alaska.

Lankford, R. & Riley, J.D. (1986). Native American reading disability. *Journal of American Indian Education*, *25* (3), 1-11.

Lindfors, J.W. (1987). *Children's language and learning*. Englewood Cliffs: Prentice-Hall Inc.

Lipson, M.Y. (1983). The influence of religious affiliation on children's memory for text information. *Reading Research Quarterly*, *18*(3), 448-457.

Malicky, G. (1987). *A reading process approach to diagnosis and remediation* (6th ed). Unpublished Manuscript, University of Alberta.

McDermott, R. (1987). The teacher as an enemy. In G.D. Spindler (Ed.), *Education and cultural process:*

Anthropological approaches to education (2nd ed.) (pp. 173-209). Prospect Heights, Ill.: Waveland Press Inc.

Merriam. S.B., (1988). Case study research in education: A qualitative approach. San Francisco: Jossey Bass Publishers.

Mohawk, J.C. (1985). Seeking a language of understanding. Social Education, 49(2), 104-105.

More, A.J. (1987). Native Indian learning styles: A review for teachers and researchers. Journal of American Indian Education, 14(4), (17-29).

Mulcahy, R.F. & Marfo, K. (1985). Assessment of cognitive ability and instructional programming with Native Canadian children: A cognitive processes perspective. In L. Stewin & J.H. Stewart (Eds) Contemporary Educational Issues: The Canadian Mosaic (pp. 157-177). Toronto: Copp Clark, Pitman Ltd.

National Indian Brotherhood. (1972). Indian Control of Indian Education: Policy Paper Presented to the Minister of Indian Affairs and Northern Development. Ottawa: National Indian Brotherhood.

National Indian Brotherhood, Assembly of First Nations. (1988). Tradition and Education: Towards a Vision of Our Future. Akwesasne: National Indian Brotherhood, Assembly of First Nations.

Nelson, G.L. (1987). Culture's role in reading comprehension: A Schema-theoretical approach. Journal of Reading, 30(2), 424-429.

Ogbu, J. (1981). School ethnography: A multilevel Approach.Anthropology and Education Quarterly, 12(1), 3-29.

Ogbu, J. (1987). Variability in minority school performance: A problem in search of an explanation. Anthropology and Education Quarterly, 18(4), 312-334.

Ogbu, J. (1988). Literacy and schooling in American cultures: The case of Black Americans. In E..R. Kintgen, B.M. Kroll, and M. Rose (Eds.), Perspectives on Literacy (pp. 227-242). Carbondale & Edwardsville: Southern Illinois University Press.

Pearson, D. & Johnson, D. (1972). Teaching reading comprehension.Toronto: Holt, Rinehart and Winston.

Pepper, F.C., & Henry, S.L. (1986). Social and cultural effects on Indian learning style: Classroom implications. Canadian Journal of Native Education, 13(1), 54-61.

Philips, S. U. (1983). The invisible culture: Communication in classroom and community on the Warm Springs Indian reservation. New York: London.

Reynolds, R.E. (1982). Cultural schemata and reading comprehension. Reading Research Quarterly, 17(11), 353-366.

Rosenblatt, L.M. (1969). Towards a transactional theory of reading. Journal of Reading Behaviour, 1(1), 31-43.

Rosenblatt, L.M. (1989). Writing and reading. The transactional theory. In J.M. Mason (Ed.), Reading and writing connections (153-175). Toronto: Allyn and Bacon.

Scollon, R. & Scollon, S. (1981). Narrative, literacy and face in interethnic communication. New Jersey: Ablex.

Searfross, L.W. & Readence, J. E. (1989). Helping children learn to read. Englewood Cliffs, N.J.: Prentice-Hall.

Smith, F. (1988). Understanding reading: A Psycholinguistic analysis (4th ed.). Hillsdale New Jersey: L. Erlbaum Associates.

St. John, J. & Krichev, A. (1976). Northwestern Ontario Indian chidden and the WISC-r. Psychology in the Schools, 13(4), 407-411.

Steffensen, M.S. (1985). A cross-cultural perspective on reading comprehension. Reading Research Quarterly, 17(11), 353-366.

Strauss, S. (1989, January 30). Academics skeptical of theory associating race and intelligence. The Globe and Mail. P. A10.

Tafoya, T. (1982). Coyote's eyes: Native cognition styles. Journal of American Indian Education, 21(2), 21-33.

Teale, W.H. (1986). Home background and young children's literacy development. In W.H. Teale and E. Sulzby (Eds.). Emergent Literacy: Writing and Reading (pp. 173-206). Norwood, New Jersey: Ablex Publishing Corporation.

Temple, C. & Gillet, J.W. Language Arts: Learning Processes and Teaching Practices (2nd ed.), Glenview, Ill.: Scott, Foresman and Company.

Toohey, K. (1977). Teacher and Student interaction in an Indian school. Unpublished master's thesis. University of Alberta, Edmonton.

Tootoosis, V. (1983). Oral language and learning of one five year old child at home and at school. Unpublished master's thesis, University of Alberta, Edmonton.

Trueba, T. (1987). Culturally-based explanations of minority students academic achievement. Anthropology and Education Quarterly, 9(3), 270-287.

Urion, C. (1974). Professional resource persons and the new interculturalists. In F. Berry (Ed.). Northern Cross-cultural symposium (pp. 117-128). Fairbanks: University of Alaska.

Van Ness, H. (1981). Social control and social organization in an Alaskan Athabaskan classroom: A microethnography of "Getting Ready for Reading." In H.T. Trueba, G. Pung, and K. Hu-Pei (Eds.), Culture and the bilingual Classroom (pp. 120-138). Rowley: Newberry House Publishers Inc.

Vygotsky, L.S. (1978). Mind in society: The development of higher psychological processes. London, England: Harvard University Press.

Wall, D. (1985). Native: Meanings behind the label. Canadian Journal of Native Education, 12(3), 36-45.

White, S., Tharp, R.G., Jordan, C. Vogt, L. (1989). Cultural patterns of cognition reflected in the questioning of Anglo and Navajo teachers. In D.M. Topping, D.C. Crowell, and V.N. Kobayashi (Eds.), Thinking Across Cultures: The Third International Conference on Thinking. Hillsdale, N.J.: L. Erlbaum Associates.

Wilcox, K. (1982). Ethnography as a methodology and its applications to the study of schooling. In G. Spindler (Ed.), Doing the ethnography of schooling: Educational anthropology in action. Toronto: Holt, Rinehart and Winston.

Wolcott, H. (1987). The teacher as enemy. In G. Spindler (Ed.), Education and cultural process: Anthropological approaches (2nd ed.) (pp. 136-150). Prospect Height: Waveland Press Inc.

Zakaluk, B.L. & Sealey, D.B. (1988). Teaching reading to Cree-speaking children. Reading-Canada Lecture, 6(2), 93-99.

APPENDIX A

Results on Reading Tasks

TABLE A-1
Karen: Results on Reading Tasks

MISCUE ANAYSIS (%)

	Graphic Similarity			Phonic Similarity			Grammatical Acceptability			Semantic Acceptability			Meaning Change		
	Y	P	N	Y	P	N	Y	P	N	Y	P	N	Y	P	N
Uncorrected Miscues (T=12)	50	0	50	50	0	50	25	41	33	8	42	50	83	8	8
Corrected Miscues (T=11)	27	0	73	27	0	73	73	27	0	36	45	18	64	0	36

UNAIDED RECALLS (%)

	A	B	C	D	E	F	G
Oral (T=37)	14	54	11	0	5	16	0
Silent (T=22)	9	41	0	5	9	36	0
Combined (T=59)	12	49	7	2	7	24	0

RESPONSES TO QUESTIONS

	Attending/ Analysing	Synthesis	Inference	Associating
Oral	3/3	2/2	0/2	2/2
Silent	1/2	0/0	0/1	1/1
Totals	4/5	2/2	0/3	3/3

TABLE A-2
Mary: Results on Reading Tasks

MISCUE ANAYSIS (%)

	Graphic Similarity			Phonic Similarity			Grammatical Acceptability			Semantic Acceptability			Meaning Change		
	Y	P	N	Y	P	N	Y	P	N	Y	P	N	Y	P	N
Uncorrected (T=19)	37	5	58	26	11	63	74	26	0	53	32	16	26	37	37
Corrected Miscues (T=7)	29	0	71	29	0	71	86	14	0	86	14	0	14	0	86

UNAIDED RECALLS (%)

	A	B	C	D	E	F	G
Oral (T=45)	8	23	29	0	4	4	21
Silent (T=20)	0	60	20	0	20	0	0
Combined (T=65)	7	38	28	0	7	3	17

RESPONSES TO QUESTIONS

	Attending/ Analysing	Synthesis	Inference	Associating
Oral	3/3	2/3	1/4	1/2
Silent	1/2	4/4	1/2	0/1
Totals	4/5	6/7	2/6	1/3

TABLE A-3
Debbie: Results on Reading Tasks

MISCUE ANAYSIS (%)

	Graphic Similarity			Phonic Similarity			Grammatical Acceptability			Semantic Acceptability			Meaning Change		
	Y	P	N	Y	P	N	Y	P	N	Y	P	N	Y	P	N
Uncorrected Miscues (N=36)	47	8	44	44	11	36	36	22	42	33	22	44	78	3	19
Corrected Miscues (N=4)	50	25	25	75	0	25	25	0	75	25	0	75	100	0	0

UNAIDED RECALLS (%)

	A	B	C	D	E	F	G
Oral (N=23)	9	49	9	0	13	13	8
Silent (N=12)	0	33	0	0	0	25	42
Combined (N=35)	6	43	6	0	9	17	20

RESPONSES TO QUESTIONS

	Attending/ Analysing	Synthesis	Inference	Associating
Oral	4/4	3/4	4/5	2/2
Silent	1/1	1/2	1/3	1/1
Totals	5/5	4/6	5/8	3/3

TABLE A-4
Justin: Results on Reading Tasks

MISCUE ANALYSIS (%)

	Graphic Similarity			Phonic Similarity			Grammatical Acceptability			Semantic Acceptability			Meaning Change		
	Y	P	N	Y	P	N	Y	P	N	Y	P	N	Y	P	N
Uncorrected Miscues (T=22)	32	9	59	36	5	59	95	5	0	91	9	0	9	14	77
Corrected Miscues (T=14)	57	7	36	43	21	36	57	14	29	43	14	43	86	0	14

UNAIDED RECALLS (%)

	A	B	C	D	E	F	G
Oral (T=45)	9	38	16	2	18	16	2
Silent (T=20)	5	30	5	0	25	15	20
Combined (T=65)	8	35	12	2	20	15	8

RESPONSES TO QUESTIONS

	Attending/ Analysing	Synthesis	Inference	Associating
Oral	1/1	0/0	2/2	1/1
Silent	2/3	4/4	0/0	1/1
Totals	3/4	4/4	2/2	2/2

TABLE A-5
Results on Miscue Analysis for All Four Children

UNCORRECTED MISCUES (%)

Child	Word Accuracy	Graphic Similarity			Phonic Similarity			Grammatical Accept.			Semantic Accept.			Meaning Change		
		Y	P	N	Y	P	N	Y	P	N	Y	P	N	Y	P	N
Justin	(96% / 96%)	32	9	59	36	5	59	95	5	0	91	9	0	9	14	77
Mary	(95% / 95%)	37	5	58	26	11	63	74	26	0	53	32	16	26	37	37
Karen	(96% / 97%)	50	0	50	50	0	50	25	41	33	8	42	50	83	8	8
Debbie	(88% / 90%)	47	8	44	44	11	36	36	22	42	22	30	74	78	13	19

CORRECTED MISCUES (%)

Child	Correction Rate	Graphic Similarity			Phonic Similarity			Grammatical Accept.			Semantic Accept.			Meaning Change		
		Y	P	N	Y	P	N	Y	P	N	Y	P	N	Y	P	N
Justin	36%	57	7	36	43	21	36	57	14	29	43	14	43	86	0	14
Mary	27%	29	0	71	29	0	71	86	14	0	86	14	0	14	0	86
Karen	48%	27	0	73	27	0	73	73	27	0	36	45	18	64	0	36
Debbie	10%	50	25	25	75	0	25	25	0	75	25	0	75	100	0	0

TABLE A-6
Results on Comprehension Tasks: All Four Children

UNAIDED RECALLS

Child	A	B	C	D	E	F	G
Justin	8	35	12	2	20	15	8
Mary	7	38	28	0	7	3	17
Karen	12	49	7	2	7	24	0
Debbie	6	43	6	0	9	17	20

COMPREHENSION QUESTIONS

Child	Attending/ Analyzing	Synthesis	Inference	Associating
Justin	3/4	4/4	2/2	2/2
Mary	4/5	6/7	2/6	1/3
Karen	4/5	2/2	0/3	3/3
Debbie	5/5	4/6	5/8	3/3

APPENDIX B

Sample Observation Guides

Evaluation strategies employed:

e.g. 1. Small group
2. Read alouds
3. U.S.S.R.
4. Reading Response Journals

	OFTEN	SOMETIMES	SELDOM
______________ is able to read effectively: • alone • to the teacher or peers • in groups • during USSR •			
______________ is able to use reading to: • get information • share experiences of others • make personal associations • use imagination (stories, poems) • enjoy language patterns •			
During reading activities ______________ is able to: • use context to get meaning • use phonic/ structural analysis • monitor for new words • self-correct to maintain meaning • retell content adequately • respond creatively			

Source: Language Arts Evaluation: Options for Consideration. Calgary Catholic Schools, Curriculum Branch, 1989, 88-38 .

Miscues: ____________ generally meaningful ____________ generally not meaningful

Comments:

Attempts to monitor for sense and correct non-meaningful miscues ___ yes ___ no

Correction attempts: __________ successful __________ unsuccessful

Strategies employed:
__________ context cues
__________ structural analysis
__________ phonic analysis
__________ use of background knowledge
__________ requests for assistance
__________ use of room/other resources

	extensive/ complete	adequate/ general	minimal/ incomplet
Able to summarize the main ideas of what is read.			
Able to identify and discuss: a) characters b) setting c) story details d) sequence of events			
Able to make inferences.			
Able to reach conclusions.			
Able to extend textual information to personal experience and/or other passages.			

This type of summary sheet may be used with individuals or as a group/class summary, where students with similar profiles are identified as a basis for temporary needs group instruction.

Source: Language Arts Evaluation:
Options for Consideration. Calgary
Catholic Schools, Curriculum Branch,
1989, 88-122.